

STATE OF CALIFORNIA CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD

Base Year Modification Request Certification  
Part 1: Generation Study - No Extrapolation Diversion Data

**STAFF COPY**

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 be connected to your OLA representative.

Mail completed documents to:

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

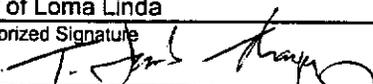
SEP 21 2001

**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			
<i>All respondents must complete this section.</i>			
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 City of Loma Linda		County San Bernardino	
Authorized Signature 		Title Public Works Director	
Type/Print Name of Person Signing Mr. T. Jarb Thaipejr	Date 24-Sep-01	Phone ( ) Include Area Code 909-799-4402	
Person Completing This Form (please print or type) Jon Root		Title Senior Project Manager	
Affiliation: E. Tseng & Associates, 30023 W Rainbow Crest Drive, Agoura Hills, CA 91301			
Mailing Address 25541 Barton Road	City Loma Linda	State CA	ZIP Code 92354
E-Mail Address <a href="mailto:jonroot@earthlink.net">jonroot@earthlink.net</a>			

**Section II: Information for New Generation-Based Study for Existing or New Base Year**

**Attach additional sheets if necessary—reference each response to the appropriate cell number (e.g., "4").**

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

1. Current Board-approved existing base year: 1990 - 20,321 tons (from CIWMB web site - Jurisdiction profile)	2. Proposed new generation-based study year: 1999 - 24,454 tons (from total of section 7-8)
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3. Explain how the proposed generation study year is representative of average annual jurisdiction disposal and diversion:

This study includes information from the following sources: detailed records provided by the franchised waste hauler, Waste Management Inc (WMI), of the commercial and residential waste disposal and recycling of all accounts serviced; on-site waste evaluations at 78 businesses for data not captured in the collections performed by WMI, and; information from city staff on the internal waste diversion activities practiced by the city. The City believes that these disposal and diversion activities are representative of a typical year and do not include spikes that may alter waste generation.

4. Enter diversion rate information below.

Diversion rate calculated using existing base year	a. 32 %	Diversion rate calculated using new generation-based study	b. 24 %
For existing base year pounds/person/day based on generation	6.02	For new generation based study pounds/person/day based on generation	6.26
Residential generation 32 %	Non-Residential generation 68 %	Residential generation 28% %	Non-Residential generation 72% %
Population existing generation-based study	18470	Population new generation-based study	21600

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 any examples (e.g., change in jurisdiction's demographics).

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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.)

It is difficult to know exactly why the diversion rate has declined for the City, especially in light of the fact that additional programs have been implemented since the initial base year study was done, including automated recycling collection to all single-family homes, participation in a County-wide landscape waste minimization program, and expanded recycling activities from the commercial sector. However, we can speculate that the decrease may be due to greater accuracy of data collected for the year 1999 than was gathered for the initial base year study. The city has also experienced some growth in multi-family housing units and these housing units are currently not provided recycling collection. And finally, it is possible that the the two largest waste generators in the city, Loma Linda University & Medical Center and the VA Hospital have increased their use of disposable medical items that are not recycled.

<b>7. Disposal Tonnage (enter values):</b>	3979 Residential	14725 Non-Residential	18704 Total
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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 Request and Modification Certification sheet found at [www.ciwm.ca.gov/LGCentral/Forms/rytmdrq.doc](http://www.ciwm.ca.gov/LGCentral/Forms/rytmdrq.doc))

c. Some Disposal Reporting System data were corrected. (Please complete Reporting Year Tonnage Modification Request and Certification sheet found at [www.ciwm.ca.gov/LGCentral/Forms/rytmdrq.doc](http://www.ciwm.ca.gov/LGCentral/Forms/rytmdrq.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 back-up documentation, if requested.** Include type of record and location—for example, weight tickets from transfer stations. This section should capture all diversion tonnage (form will perform all addition calculations). If any diversion is from restricted wastes, agricultural wastes, inert solids (e.g., concrete, asphalt, dirt,) white goods, and scrap metal, please identify those programs/waste types and fill out Section 10. Please mark as Attachment B all copies of survey forms.

\*Please provide detailed Non-Residential waste 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 substantiating your claim.**

Diversion Activity	Actual tons (A)	Relative Percent to Total Generation (A/Total Generation)	Specific Material Type(s) (List operation with multiple materials in one box)	Specific Conversion Factor Used (if any) and Source	Type of Record and Location of Record
Please use the Board's program types. The program type glossary is online at <a href="http://www.ciwm.ca.gov/LGCentral/Pans/Codes/Reduce.htm">www.ciwm.ca.gov/LGCentral/Pans/Codes/Reduce.htm</a>					
<b>Residential Source Reduction Activities</b>					
Backyard composting	0	0.0%	The City participates in the San Bernardino County Grasscycling task force and promotes backyard composting to its residents. However, the City does not currently track data to verify how much backyard composting is taking place and therefore cannot provide a specific number.	none	none
Grasscycling	0	0.0%	The City participates in the San Bernardino County Grasscycling task force and promotes grasscycling to its residents. However, the City does not currently track data to verify how much residential grasscycling is taking place and therefore cannot provide a specific number.	none	none
<b>Other Residential Source Reduction (list each program separately)</b>					
Enter program name		0.0%			
Enter program name		0.0%			
Enter program name		0.0%			
Enter program name		0.0%			
Enter program name		0.0%			
<b>Subtotal Residential Source Reduction</b>	0	0.0%			
<b>Residential Recycling Activities</b>					
Curbside Recycling	682	2.6%	2000 RC-CRB Curbside recycling collection of paper, cans, glass, plastics collected by franchised waste hauler, to all single-family households		actual tonnage figures provided by franchised recycling collector, WMI; records maintained by Ann Kull, Dept of Public Works
Buyback Centers	0	0.0%	no buy-back centers located in Loma Linda in 1999		
Drop-off Centers	0	0.0%	no drop-off centers located in Loma Linda		

Diversion Activity	Actual Tons	Relative Percent to Total Generation	Specific Material Type(s) (List operation with multiple materials in one box)	Specific Conversion Factor Used (if any) and Source	Type of Record and Location of Record
Please use the Board's program types. The program type glossary is online at: <a href="http://www.ciwmf.ca.gov/ICentral/Paris/Cgdes/Reduce.htm">www.ciwmf.ca.gov/ICentral/Paris/Cgdes/Reduce.htm</a>					
<b>Other Residential Recycling (list each program separately)</b>					
Enter program name					
Enter program name					
Enter program name					
Enter program name					
Enter program name					
<b>Subtotal, Residential Recycling</b>	<b>882</b>	<b>2.8%</b>			
<b>Residential Composting Activities</b>					
<b>Green Waste Drop-off</b>					
Curbside Green Waste	2166	8.9%	3000-CM-RCG Curbside collection of green waste from all single-family households	actual records	actual tonnage figures provided by franchised recycling collector, WMI; records maintained by Ann Kull, Dept of Public Works
Christmas Tree Program	0	0.0%	Christmas trees are collected, but tonnage is already calculated into the curbside green waste collection figures		
<b>Other Residential Composting (list each program separately)</b>					
Enter program name					
Enter program name					
Enter program name					
Enter program name					
Enter program name					
<b>Subtotal, Residential Composting</b>	<b>2166</b>	<b>8.9%</b>			
<b>Subtotal, Residential Diversion</b>	<b>2848</b>	<b>11.6%</b>			
<b>Non-Residential Source Reduction Activities</b>					
<b>Non-Residential Waste Audits*</b>	<b>628</b>	<b>2.6%</b>	<b>See Section 9</b>	<b>See Section 9</b>	<b>See Section 9</b>
<b>Other Non-Residential Source Reduction (list each program separately)</b>					
1000-SR-XGC Grasscycling of publicly owned property with turf grass	331	1.4%	Grass waste is source reduced through the practice of grasscycling on 51 publicly-owned acres of turf grass	6.5 tons per acre/per year - CIWMB Diversion Study Guide p 56; reference to: Harivandi, M. A., et al., "Grasscycling in California," California Turfgrass Culture, Vol. 46, Nos. 1 and 2, 1996, p. 1	Information on acreage of turf in public parks, right-of-ways, etc, provided by Ann Kull, Department of Public Works
Enter Program name					
Enter program name					
Enter program name					
Enter program name					
<b>Subtotal, Non-Residential Source Reduction</b>	<b>859</b>	<b>3.3%</b>			
<b>Non-Residential Waste Audits* Recycling</b>					
<b>Non-Residential Waste Audits*</b>	<b>1477</b>	<b>6.0%</b>	<b>See Section 9</b>	<b>See Section 9</b>	<b>See Section 9</b>
<b>Other Non-Residential Recycling (list each program separately)</b>					
2030-RS-OSP Commercial Recycling Collection Program	31	0.1%	Mixed paper and corrugated cardboard collection from commercial accounts	none	Actual tonnage figures provided by franchised recycling collector, WMI; records held by City, these are from commercial accounts that are hauled by WMI only
Enter program name					
Enter program name					
Enter program name					
Enter program name					
<b>Subtotal, Non-Residential Recycling</b>	<b>1504</b>	<b>6.2%</b>			
<b>Non-Residential Composting Activities</b>					

Diversion Activity	Actual tons (A)	Relative Percent to Total Generation (A/Total Generation)	Specific Material Type(s) (List operation w/multiple materials in one box)	Specific Conversion Factor Used (if any) and Source	Type of Record and Location of Record
Please use the Board's program types. The program type glossary is online at <a href="http://www.ciwmbl.ca.gov/IGCentral/Pans/Codes/Reduce.htm">www.ciwmbl.ca.gov/IGCentral/Pans/Codes/Reduce.htm</a>					
Non-Residential Waste Audits			See Section 9	See Section 9	See Section 9
Other Non-Residential Composting (list each program separately)					
Composting of City-generated organic landscape debris	68	0.4%	Organics trimmings generated by the Public Works Department; 592 trees trimmed and 7.5 cy/wk of shrub clippings from public properties	none	Weight tickets from green waste recycler, One-Stop Nursery; all materials are ground and used for composting, records maintained by Ann Kull with Department of Public Works
Enter program name					
Enter program name					
Enter program name					
Enter program name					
Subtotal Non-Residential Composting	68	0.4%			
Subtotal Non-Residential Diversion	2555	10.4%			
Residential/Non-Residential Diversion Activities					
ADC					
Sludge					
Scrap Metal					
Construction and Demolition	347	1.4%	4060-SP-CAR Concrete and Asphalt from City operations taken to Dann Kopp Crushing	none	report provided from County of Orange - April 2001
Landfill Salvage					
Subtotal Residential/Non-Residential Diversion	347	1.4%			
Total Res/Non-Res Source Reduction Tons	856	3.0%			
Total Diversion Tons	X 5750	23.5%			
Total Disposal Tons from Sec.7	18704	70.5%			
Total Generation Tons (Div+Dis)	Y 24454				
Diversion Rate	24%				

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 largest to smallest, based on total diversion tons. Audit reference number ties to your audit sheets.

(Table will perform all addition calculations).

Type of Non-Residential Generator	Audit Reference Number	Specific/Major Diversion Activities Include Material Type (e.g., paper recycling, grasscycling). (List activities on one line)	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
Hospital & University	1	R OCC bales 211 tons/yr; R office paper 313 tons; R composting green waste 141 tons/yr; R grease 2 tons; R xray film 5 tons; SR grasscycling 325 tons/yr; SR medical equipment donation 24 tons/yr; SR food bank donation 16 tons/yr; SR patient medical records 18 tons/yr; SR on-site mulching 10 tons/yr; SR surgical device reuse 5 tons/yr	398	672		1069.8	4.4%	O
Supermarket	7	R OCC bales - 270 tons/yr; R fat and bone rendering 64 tons/yr; SR pallet reuse 46.8 tons/yr	47	334		380.8	1.6%	O
VA Hospital	2	R OCC bales - 80 tons/yr; R office paper 75 tons; R grease 6.7 tons/yr; SR grasscycling 91 tons/yr; SR office and medical equipment sold 3 tons/yr; SR pallet reuse 5.2 tons/yr	99	161		260	1.1%	O
Supermarket	17	R OCC bales - 135 tons/yr; SR pallet reuse 9.36 tons/yr	9	135		144.36	0.6%	O
Retail Pharmacy	14	R OCC bales - 67.5 tons/yr; SR pallet reuse 3.12 tons/yr	3	68		70.62	0.3%	O
Education	16	R OCC boxes 25.74 tons/yr; SR food donation 3 tons/yr; SR pallet reuse 21.4 tons/yr	24	26		50.14	0.2%	O
Restaurant	6	R OCC boxes 28.87 tons/yr		29		28.87	0.1%	O
Restaurant	35	R grease rendering 10.6 tons/yr; SR plastic serviceware 2.63 tons/yr	3	11		13.23	0.1%	O
Mortuary	9	SR granite stone 11.2 tons/yr; SR pallet reuse 2	13			13.2	0.1%	O
Elementary School	5	SR grasscycling 13 tons/yr	13			13	0.1%	O
<b>Totals</b>			<b>608.31</b>	<b>1434.71</b>		<b>2044.02</b>	<b>8.4%</b>	

Also provide an attachment 9 which includes all of the generators surveyed. Include for each generator (use type of generator in lieu of specific business name) diversion activity and material type and associated tonnage for each diversion activity/material type, and applicable conversion factors/sources. Include copies of survey form(s) used.

Summarize the non-residential diversion activities for the top 10 generators quantification methodology, and applicable conversion factors and sources (e.g., cardboard recycling: quantified by monthly tonnage receipts provided by the contact person at the business).

See attachment 9 for detailed list of conversion factors for all site visits conducted. **NOTE: The non-residential source reduction activities tonnage in sec 7-8 is 628 tons** because this reflects the *entire* source reduction from *all site visits* conducted which are detailed in Attachment 9. **The non-residential recycling activities tonnage in sec 7-8 is 1,477 tons** because this also reflects the *entire* recycling from *all site visits* conducted which are also detailed in Attachment 9.

10. 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 dept.")

Restricted Waste Type	Specific Program Name	Year Started	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 ▼			

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 10b", provide the 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.
- That 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 10b for that waste type and program.

Instead please provide date of Board approval of previously submitted information. \_\_\_\_\_ (Date)

If documentation is not available, go to 10d.

c. If the diversion program started before January 1, 1990, and the documentation requested in 10b 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 10b 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 ▼				

Business Audit Diversion for the City of Loma Linda					
Reference Number	Business Type	Diversion Activity	Material Type	Conversion Factor and Source	Diver. Tons
	Hospital & University	Recycling	occ	weight tickets from recycler - Paper Recycling & Shredding Specialists	211
		Recycling	office paper	weight tickets from recycler - Paper Recycling & Shredding Specialists	313
		Recycling	green waste	weight tickets from recycler - Paper Recycling & Shredding Specialists	141
		Recycling	grease rendering	1 55 gal barrel/mo x 410 lbs = 2.48 tons/yr source US EPA	2
		Recycling	x ray film	12 barrels year of x ray film at 250 lbs/barrel = 4.5 tons source: InterMet Silver Recovery	5
		Source Reduction	grasscycling	50 acres of turf grasscycled annually x 6.5 tons/acre/year = 325 tons/yr source: CWMB DSG reference to California Turfgrass Culture article	325
		Source Reduction	equipment donation	4 truckloads/yr of office equipment donated to 7th Day Adventist Church Missions for overseas/local reuse source: warehouse mgr	24
		Source Reduction	food donation	actual records from donations to Inland Harvest Food Bank	16
		Source Reduction	paper	In 1999 hospital switched from paper records to computerized forms reducing paper output by 100 lbs per day source: Melissa Hingula Electronic Patient Record System	18
		Source Reduction	mulching	estimate of tonnage clipped by Dept Dir, Gerhard Steudel	10
		Source Reduction	surgical devices	estimate of tonnage based on 25 lbs/day recovered, Jean Burghoff	5
	Supermarket	Recycling	occ	12 large bales every week = 624 bales/yr x 900 lbs/bale = 540,000 lbs/yr source: US EPA	270
		Recycling	grease rendering	(8) 55 gal drums/wk at 410 lbs/barrel x 52 wks/yr = 2160 lbs/cy = 1,298,000 lbs/yr source: US EPA	64
		Source Reduction	wood pallets	45 pallets/day (40 lbs pallet / 5 uses) x 5 days/wk = 1800 lbs/wk x 52 weeks/yr = 93,600 lbs/yr source: US EPA	46.8
	VA Hospital	Recycling	occ	248 bales/yr at 650 lbs/bale source: Env Services Mgr	80
		Recycling	office paper	74.64 tons/yr based on estimate of Env Services Mgr	75
		Recycling	grease rendering	150 gals/mo x 7.45 lbs/gal = 13,410 lbs/yr = 6.7 tons/yr source: US EPA	6.7
		Source Reduction	grasscycling	14 acres x 6.5 tons/acre/yr = 91 tons/yr source: CWMB DSG reference to California Turfgrass Culture article	91
		Source Reduction	office equipment	6000 lbs/yr office furniture and equipment donated source: Env Services Mgr	3
		Source Reduction	wood pallets	25 pallets/wk (40 lbs pal / 5 uses) x 52 weeks/yr = 10400 lbs/yr = 5.2 tons/yr source: US EPA	5.2
	Supermarket	Recycling	occ	(8) large bales/wk at 900 lbs/bale = 5400 lbs/wk x 50 wks/yr = 135 tons/yr source: US EPA	135
		Source Reduction	pallets	15 pallets/wk back to distributor x (40 lbs/pallet / 5 uses = 8 lbs/pallet) = 120 lbs/wk x 52 wks/yr = 6240 lbs/yr source: US EPA	9.36
	Retail Pharmacy	Recycling	occ	(3) large bales/wk occ backhauled to distribution center at 900 lbs/bale = 2700 lbs/wk x 50 wks/yr = 135,000 lbs/yr source: US EPA	67.5
		Source Reduction	pallets	45 pallets/wk back to distributor x (40 lbs/pallet / 5 uses = 8 lbs/pallet) = 360 lbs/wk x 52 wks/yr = 9.36 tons source: US EPA	3.12
	Education	Recycling	occ	450 med boxes recycled wk x 2.2 lbs x 52 wks/yr = 51480 lbs/yr source: US EPA	26
		Source Reduction	food donation	3 cy/mo of food donation estimated at 500 lbs each bin x 12 mos/yr = 6000 lbs/yr source: Mgr estimate	3
		Source Reduction	wood pallets	100 pal/wk reused (40 lbs/pall / 5 uses) = 800 /bs x 52 wks/yr = 20.8 tons/yr source: US EPA	21
	Restaurant	Recycling	occ	75 boxes/day at 2.2 lbs = 165 lbs/day x 7 days/wk = 1155 lbs/wk x 50 wks/yr = 57,750 lbs/yr source: US EPA	29
	Restaurant - fast food	Recycling	grease rendering	(1) 55 gal drums/wk at 410 lbs/barrel x 52 wks/yr = 21,320 lbs/yr = 10.66 tons/yr source: US EPA	10.66
		Source Reduction	plastic	This fast food restaurant uses durable plates and cups for inside customers, serving approx 75 customers inside per day; 75 plates x .125 lbs x 312 days/yr = 2925 lbs/yr savings; 75 cups day x .05 lbs x 312 days/yr = 2340 lbs/yr savings source: actual weights of poly cups	2.63
	Mortuary	Source Reduction	wood pallets	10 pal/wk reused (40 lbs/pall / 5 uses) = 80 /bs x 52 wks/yr = 2 tons/yr source: US EPA	2
		Source Reduction	granite stone	400 granite headstones reused to build retainer walls at 56 lbs/ea = 22,400 lbs/yr = 11.2 tons/yr source Asst Superintendent	11.2

Duplicate

Business Audit Diversion for the City of Loma Linda					
Reference Number	Business Type	Diversion Activity	Material Type	Conversion Factor and Source	Diver. Tons
	Hospital & University	Recycling	occ	weight tickets from recycler - Paper Recycling & Shredding Specialists	211
		Recycling	office paper	weight tickets from recycler - Paper Recycling & Shredding Specialists	313
		Recycling	green waste	weight tickets from recycler - Paper Recycling & Shredding Specialists	141
		Recycling	grease rendering	1 55 gal barrel/mo x 410 lbs = 2.46 tons/yr source US EPA	2
		Recycling	x ray film	12 barrels year of x ray film at 250 lbs/barrel = 4.5 tons source: InterMet Silver Recovery	5
		Source Reduction	grasscycling	50 acres of turf grasscycled annually x 6.5 tons/acre/year = 325 tons/yr source:CIWMB DSG reference to California Turfgrass Culture article	325
		Source Reduction	equipment donation	4 truckloads/yr of office equipment donated to 7th Day Adventist Church Missions for overseas/local reuse source: warehouse mgr	24
		Source Reduction	food donation	actual records from donations to Inland Harvest Food Bank	16
		Source Reduction	paper	In 1999 hospital switched from paper records to computerized forms reducing paper output by 100 lbs per day source: Melissa Hingula Electronic Patient Record System	18
		Source Reduction	mulching	estimate of tonnage chipped by Dept Dir, Gerhard Staudel	10
		Source Reduction	surgical devices	estimate of tonnage based on 25 lbs/day recovered, Jean Burghoff	5
	Supermarket	Recycling	occ	12 large bales every week = 624 bales/yr x 900 lbs/bale = 540,000 lbs/yr source: US EPA	270
		Recycling	grease rendering	(6) 55 gal drums/wk at 410 lbs/barrel x 52 wks/yr = x 2160 lbs/cy = 1,296,000 lbs/yr source: US EPA	64
		Source Reduction	wood pallets	45 pallets/day (40 lbs pallet / 5 uses) x 5 days/wk = 1800 lbs/wk x 52 weeks/yr = 93,600 lbs/yr source: US EPA	46.8
	VA Hospital	Recycling	occ	246 bales/yr at 650 lbs/bale source: Env Services Mgr	80
		Recycling	office paper	74.64 tons/yr based on estimate of Env Services Mgr	75
		Recycling	grease rendering	150 gals/mo x 7.45 lbs/gal = 13,410 lbs/yr = 6.7 tons/yr source: US EPA	6.7
		Source Reduction	grasscycling	14 acres x 6.5 tons/acre/yr = 91 tons/yr source: CIWMB DSG reference to California Turfgrass Culture article	91
		Source Reduction	office equipment	8000 lbs/yr office furniture and equipment donated source: Env Services Mgr	3
		Source Reduction	wood pallets	25 pallets/wk (40 lbs pal / 5 uses) x 52 weeks/yr = 10400 lbs/yr = 5.2 tons/yr source: US EPA	5.2
	Supermarket	Recycling	occ	(6) large bales/wk at 900 lbs/bale = 5400 lbs/wk x 50 wks/yr = 135 tons/yr source: US EPA	135
		Source Reduction	pallets	15 pallets/wk back to distributor x (40 lbs/pallet / 5 uses = 8 lbs/pallet) = 120 lbs/wk x 52 wks/yr = 6240 lbs/yr source: US EPA	9.36
	Retail Pharmacy	Recycling	occ	(3) large bales/wk occ backhauled to distribution center at 900 lbs/bale = 2700 lbs/wk x 50 wks/yr = 135,000 lbs/yr source: US EPA	67.5
		Source Reduction	pallets	45 pallets/wk back to distributor x (40 lbs/pallet / 5 uses = 8 lbs/pallet) = 360 lbs/wk x 52 wks/yr = 9.36 tons source: US EPA	3.12
	Education	Recycling	occ	450 med boxes recycled wk x 2.2 lbs x 52 wks/yr = 51480 lbs/yr source: US EPA	26
		Source Reduction	food donation	3 cy/mo of food donation estimated at 500 lbs each bin x 12 mos/yr = 6000 lbs/yr source: Mgr estimate	3
		Source Reduction	wood pallets	100 pal/wk reused (40 lbs/pall / 5 uses) = 800 lbs x 52 wks/yr = 20.8 tons/yr source: US EPA	21
	Restaurant	Recycling	occ	75 boxes/day at 2.2 lbs = 165 lbs/day x 7 days/wk = 1155 lbs/wk x 50 wks/yr = 57,750 lbs/yr source: US EPA	29
	Restaurant - fast food	Recycling	grease rendering	(1) 55 gal drums/wk at 410 lbs/barrel x 52 wks/yr = 21,320 lbs/yr = 10.66 tons/yr source: US EPA	10.66
		Source Reduction	plastic	This fast food restaurant uses durable plates and cups for inside customers, serving approx 75 customers inside per day; 75 plates x .125 lbs x 312 days/yr = 2925 lbs/yr savings; 75 cups day x .05 lbs x 312 days/yr = 2340 lbs/yr savings source: actual weights of poly cups	2.63
	Mortuary	Source Reduction	wood pallets	10 pal/wk reused (40 lbs/pall / 5 uses) = 80 lbs x 52 wks/yr = 2 tons/yr source: US EPA	2
		Source Reduction	granite stone	400 granite headstones reused to build retainer walls at 56 lbs/ea = 22,400 lbs/yr = 11.2 tons/yr source Asst Superintendent	11.2

Business Audit Diversion for the City of Loma Linda					
Reference Number	Business Type	Diversion Activity	Material Type	Conversion Factor and Source	Diver. Tons
	Elementary School	Source Reduction	grasscycling	2 acres of turf at 6.4 tons/acre/year = 13 tons/yr source: CIWMB reference to California Turfgrass Culture article	13
		Recycling	paper	taken to bin at University so already counted in Reference no. 1	
	Restaurant - fast food	Recycling	grease rendering	(1) 55 gal drums/wk at 410 lbs/barrel x 52 wks/yr = 21,320 lbs/yr = 10.66 tons/yr source: US EPA	10.66
	Automotive Services	Recycling	occ	50 med boxes/wk x 2.2 lbs/ea x 52 wks/yr = 5720 lbs/yr source US EPA	2.86
		Recycling	chipboard	10 lbs/wk x 52 wks/yr = 520 lbs/yr source US EPA	0.26
		Recycling	shredded paper	(1) 33 gal bag day x 260 days/yr = 2080 lbs/yr source US EPA	1
		Source Reduction	wood pallets	scavenger collects 20 pallets/mo x 40 lbs ea = 800 lbs/wk x 12 mo/yr = 9600 lbs/yr = 4.8 tons yr	4.8
	Car Dealer	Recycling	occ	75 boxes/wk 2.2 lbs/ea = 165 lbs/wk x 50 wks/yr = 8250 lbs/yr source: US EPA	4
		Source Reduction	wood pallets	40 pallets/mo returned to distribution center x (40 lbs/pallet / 5 uses) = 8 lbs/pallet) = 3840 lbs/yr source: US EPA	2
	Retail Pharmacy	Recycling	occ	1500 lbs/yr backhauled to warehouse = 1500 lbs/yr source: US EPA	1
		Source Reduction	wood pallets	15 pallets/wk returned to supplier x (40 lbs/pallet / 5 uses) = 120 lbs x 52 wks/yr = 6240 lbs/yr source: US EPA	3
	Restaurant	Recycling	occ	50 med boxes/wk at 2.2 lbs/ea x 52 wks/yr = 5720 lbs/yr US EPA	2.88
		Recycling	newspaper	5 wk at 1 lb/ea x 52 wks/yr = 260 lbs/yr source: avg weight	0.13
		Source Reduction	food donation	phone conversation with Inland Harvest Director Barbara Womser	0.93
	Automotive Dealership	Recycling	occ	50 boxes/wk recycling x 2.2 lbs/box 110 lbs/wk x 50 wks/yr = 5500 lbs/yr source: US EPA	2.75
		Source Reduction	wood pallets	5 pallets/wk (40 lbs pal / 5 uses) x 52 weeks/yr = 2080 lbs/yr = 1.04 tons/yr source: US EPA	1
	Nursing Homes	Source Reduction	wood pallets	15 pallets/wk returned to supplier x (40 lbs/pallet / 5 uses) = 120 lbs x 52 wks/yr = 6240 lbs/yr source: US EPA	3
		Source Reduction	grasscycling	.045 acres of turf grasscycled annually x 6.5 tons/acre/year = .29 tons/yr source: CIWMB DSG reference to California Turfgrass Culture article	0.29
	Interior Design	Recycling	occ	15 large boxes/wk x 4.0 lbs/ea = 60 lbs/wk x 52 wks/yr = 3120 lbs/yr source: US EPA	1.56
				(2) 33 gal containers/wk recycled at 25 lbs/ea = 50 lbs/wk x 52 wks/yr = 2600 lbs/yr source: US EPA	1.3
	Retail	Recycling	occ	15 large boxes/wk x 4.0 lbs/ea = 60 lbs/wk x 52 wks/yr = 3120 lbs/yr source: US EPA	1.56
		Source Reduction	wood pallets	2 pallets/mo taken by scavenger x 40 lbs = 80 lbs/mo x 12 mos/yr = 960 lbs/yr source: US EPA	0.48
	US post office	Source Reduction	plastic pallets	10 pallets/wk reuse x 8 lbs/ea = 80 lbs/wk x 52 wks/yr = 4160 lbs source: US EPA	2
	Medical Offices	Recycling	office paper	(3) 33 gal containers/wk recycled at 25 lbs/ea = 75 lbs/wk x 50 wks/yr = 3750 lbs/yr source: US EPA	1.8
	Retail	Recycling	occ	15 large boxes/wk x 4.0 lbs/ea = 60 lbs/wk x 52 wks/yr = 3120 lbs/yr source: US EPA	1.56
	Retail	Recycling	occ	15 large boxes/wk x 4.0 lbs/ea = 60 lbs/wk x 52 wks/yr = 3120 lbs/yr source: US EPA	1.56
	Food market	Recycling	occ	5 medium boxes recycled each week = 11 lbs/wk x 52 wks/yr = 572 lbs/yr = .28 tons/yr source: US EPA	0.28
		Recycling	newspaper	30 newspapers/wk at 1 lb/ea = 30 lbs/wk x 52 wks/yr = 1560 lbs/yr source: avg. weight	0.78
	Engineering Consultants	Recycling	occ	4 medium boxes recycled each week = 8.8 lbs/wk x 52 wks/yr = 458 lbs/yr = .28 tons/yr source: US EPA	0.22
		Recycling	office paper	3 oxes/wk at 10 lbs/ea = 30 lbs/wk x 52 wks/yr = 1560 lbs/yr source: mgr estimate	0.78
	Florist - retail	Recycling	occ	17 med boxes/wk x 2.2 lbs/ea = 37.4 lbs/wk x 52 wks/yr = 1945 lbs/yr source: US EPA	0.97