

INDUSTRY GROUP 07: RETAIL TRADE – REMAINDER*

SIC Major Groups: 52, 53, 55, 56, 57
NAICS Codes: 444, 452, 441, 448, 442

INTRODUCTION

The City of Los Angeles is a recognized leader amongst the major cities in the United States in solid waste prevention and recycling programs. Los Angeles has well exceeded the California state mandate of achieving and maintaining a 50% waste diversion rate for the year 2000. To identify the materials still reaching landfill disposal, and to assist local businesses in creating their own waste diversion programs, we are providing information on waste disposal and diversion for specific industry groups.

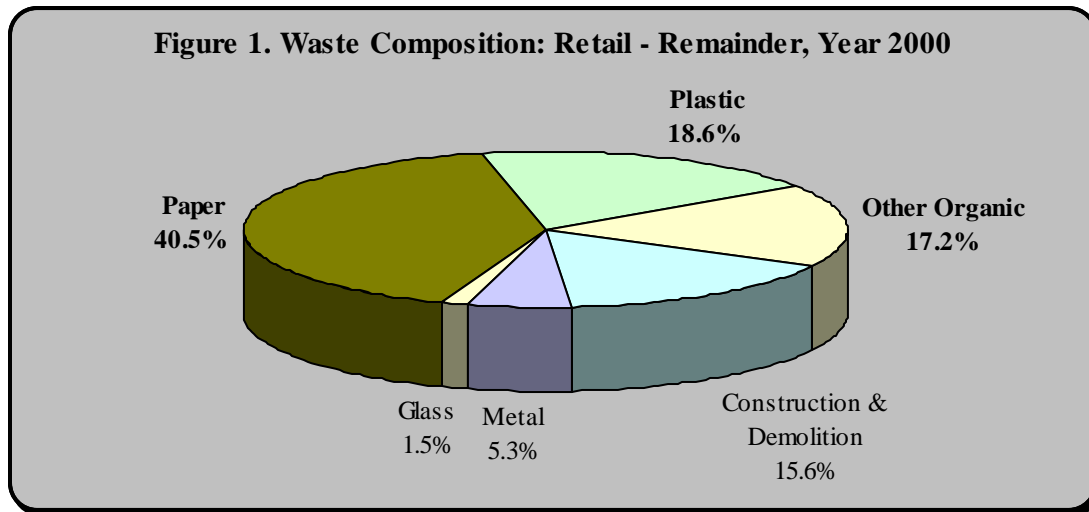
The **Retail – Remainder** industry includes five SIC Major Group categories, as indicated above. A description of each category is provided in the table below.

SIC/NAICS CODES	DESCRIPTION
52/444 – Building Materials, Hardware, and Garden Supply	Includes retail establishments primarily engaged in selling lumber and other building materials; paint, glass, and wallpaper; hardware; nursery stock; lawn and garden supplies.
53/452 – General Merchandise Stores	Includes retail stores that sell a number of lines of merchandise, such as dry goods, apparel and accessories, furniture and home furnishings, small wares, hardware, and food. The stores included in this group are known by such names as department stores, variety stores, general merchandise stores, and general stores.
55/441 – Automotive Dealers and Services Stations	Includes retail dealers selling new and used automobiles, boats, recreational vehicles, utility trailers, and motorcycles including mopeds; those selling new automobile parts and accessories; and gasoline service stations. Automobile repair shops maintained by establishments engaged in the sale of new automobiles are also included.
56/448 – Apparel and Accessory Stores	Includes retail stores primarily engaged in selling new clothing, shoes, hats, underwear, and related articles for personal wear and adornment. Furriers and custom tailors carrying stocks of materials are included.
57/442 – Home Furniture, Furnishings, and Equipment Stores	Includes retail stores selling goods used for furnishing the home, such as furniture, floor coverings, draperies, glass and chinaware, domestic stoves, refrigerators, and other household electrical and gas appliances. Establishments selling electrical and gas appliances are included in this group only if the major part of their sales consists of articles for home use.

* For additional information or assistance, please contact the City of Los Angeles, Public Works, Bureau of Sanitation, **Solid Resources Citywide Recycling Division** at (213) 473-8228.

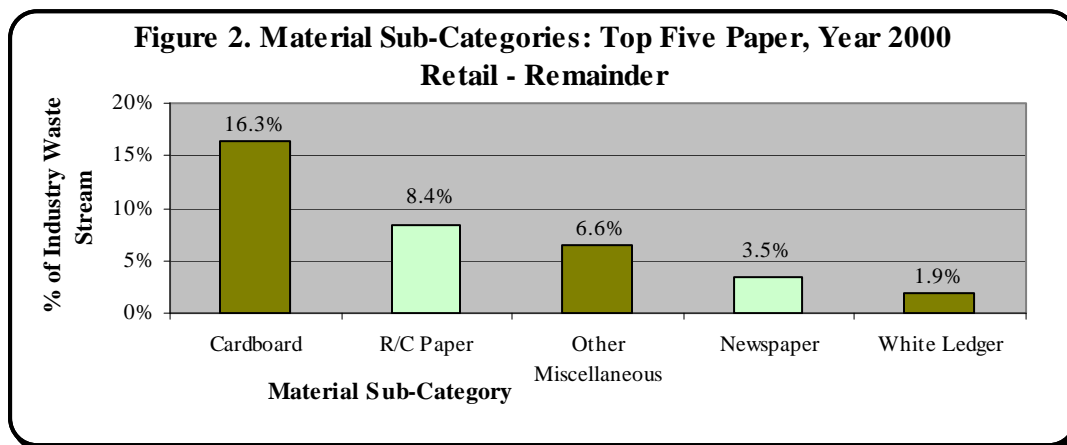
GENERAL WASTE COMPOSITION

The *Retail – Remainder* industry disposed 109,781 tons of waste in 2000 or approximately 3.1% of the total City of Los Angeles disposed waste stream (3,544,611 tons). Figure 1 displays the total waste composition by material category. The three categories that comprise the majority of the waste stream, *Paper* (40.5%), *Plastic* (18.6%) and *Other Organic* (17.2%) waste, are further discussed in the “Detailed Waste Composition” section that follows.



DETAILED WASTE COMPOSITION

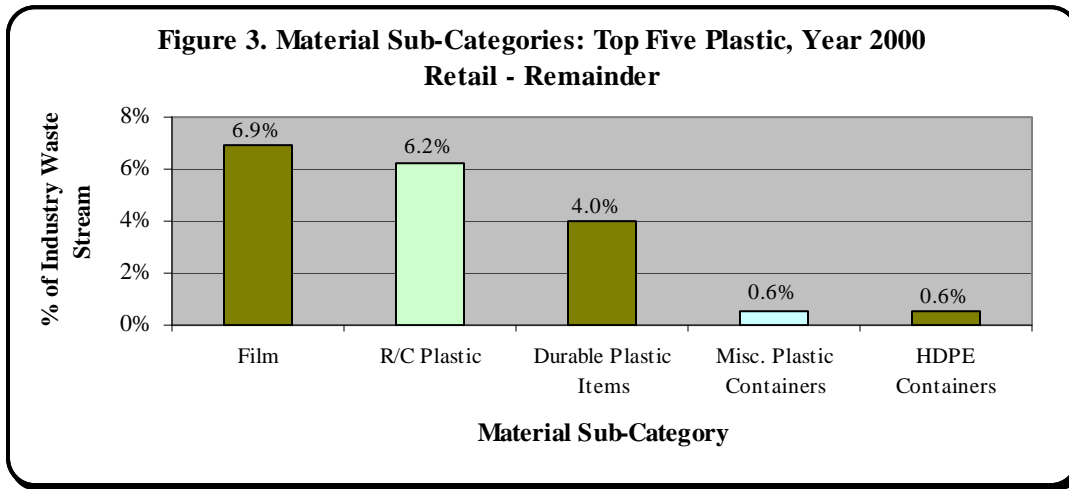
As Figure 2 indicates, the top three material sub-categories of *Paper* waste (by weight) are Cardboard, Remainder/Composite Paper (R/C Paper)¹, and Other Miscellaneous², followed by Newspaper and White Ledger.



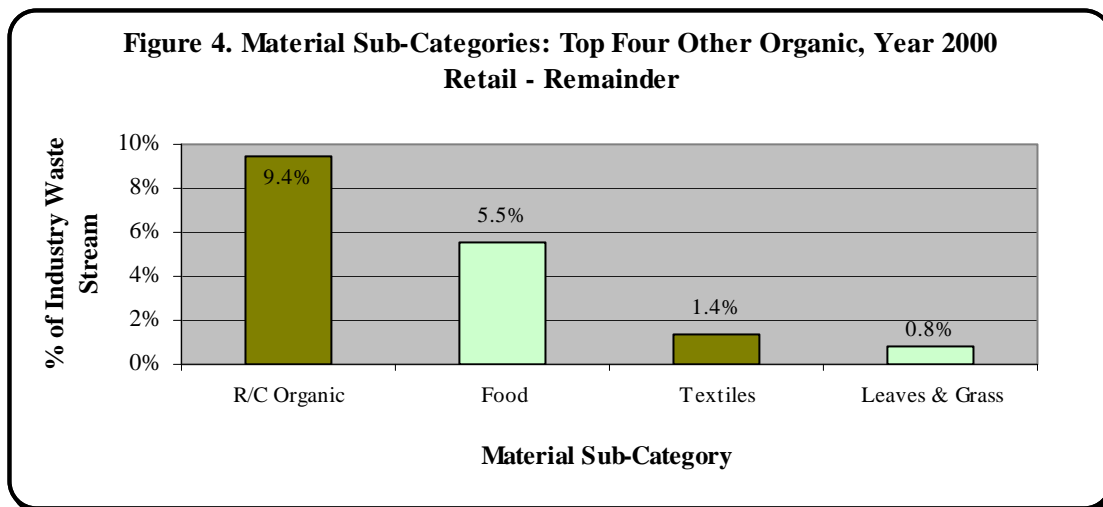
¹ According to the California Integrated Waste Management Board, “Remainder/Composite Paper” means items made mostly of paper but combined with large amounts of other materials such as wax, plastic, glues, foil, food, and moisture. Examples include waxed corrugated cardboard, aseptic packages, plastic-coated paper milk cartons, waxed paper, tissue, paper towels, blueprints, sepi, onion skin, fast food wrappers, carbon paper, self adhesive notes, and photographs.

² According to the California Integrated Waste Management Board, “Other Miscellaneous” Paper means items made mostly of paper that do not fit into any of the above subtypes. Paper may be combined with minor amounts of other materials such as wax or glues. This subtype includes items made of chipboard, ground wood paper, and deep-toned or fluorescent dyed paper. Examples include cereal and cracker boxes, unused paper plates and cups, goldenrod colored paper, school construction paper, butcher paper, and hard cover and soft cover books.

As Figure 3 indicates, the top three material sub-categories of *Plastic* disposed are Film, Remainder/Composite Plastic (R/C Plastic)³, and Durable Plastic Items, followed by Miscellaneous Plastic Containers⁴ and HDPE (#2) Containers.



As indicated in Figure 4, the top two material sub-categories of *Other Organic* materials are Remainder/Composite Organic (R/C Organic)⁵ and Food followed by Textiles and Leaves & Grass.



³ According to the California Integrated Waste Management Board, "Remainder/Composite Plastic" means plastic that cannot be put in any other type or subtype. This type includes items made mostly of plastic but combined with other materials and does not include any subtypes. Examples include auto parts made of plastic attached to metal, plastic bubble packaging, drinking straws, foam drinking cups, produce trays, egg cartons, foam packing blocks, packing peanuts, cookie trays found in cookie packages, plastic strapping, foam plates/bowls, and new Formica, vinyl, or linoleum.

⁴ According to the California Integrated Waste Management Board, "Miscellaneous Plastic Containers" means plastic containers made of types of plastic other than HDPE (high-density polyethylene) or PETE (polyethylene terephthalate). Items may be made of PVC (polyvinyl chloride), LDPE (low-density polyethylene), PP (polypropylene), PS (polystyrene), or mixed resins. When marked for identification, these items may bear the number "3", "4", "5", "6", or "7" in the triangular recycling symbol. Examples include food containers such as bottles for salad dressings and vegetable oils, flexible and brittle yogurt cups, syrup bottles, margarine tubs, microwave food trays, and clamshell-shaped fast food containers. This subtype also includes some shampoo containers, vitamin bottles, foam egg cartons, and clamshell-like muffin containers.

⁵ According to the California Integrated Waste Management Board, "Remainder/Composite Organic" means organic material that cannot be put in any other type or subtype. This type includes items made mostly of organic materials, but combined with other material types and does not include any subtypes. Examples include leather items, carpets, cork, hemp rope, garden hoses, rubber items, hair, carpet padding, cigarette butts, diapers, feminine hygiene products, small wood products (such as Popsicle sticks and tooth picks), and animal feces.

WASTE DISPOSAL TRENDS

Overall, **Retail – Remainder** waste decreased by 90,979 tons between 1990 and 2000, starting with 200,760 tons in 1990 and decreasing to 159,307 tons in 1995, then decreasing to 109,781 by the year 2000. As indicated in Figure 5, *Paper*, *Other Organic* and *Construction & Demolition* materials experienced the most dramatic shifts in the percentage of the waste stream that they comprise. Yet, *Paper*, *Plastic*, and *Other Organic* material categories together comprise the majority of the waste stream in 2000 and should be targeted for waste diversion programs by businesses in this industry.

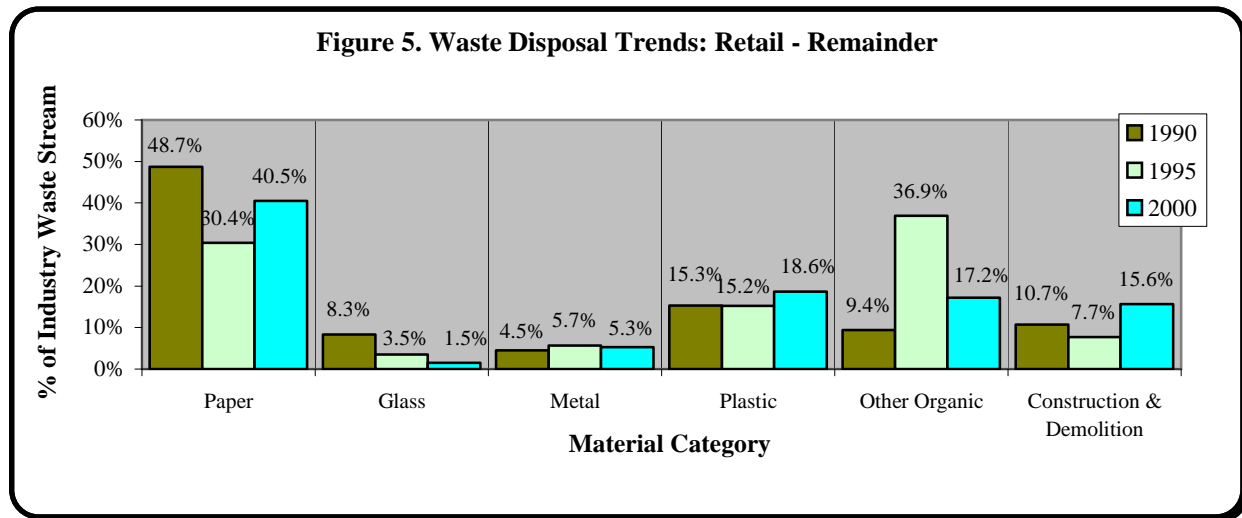
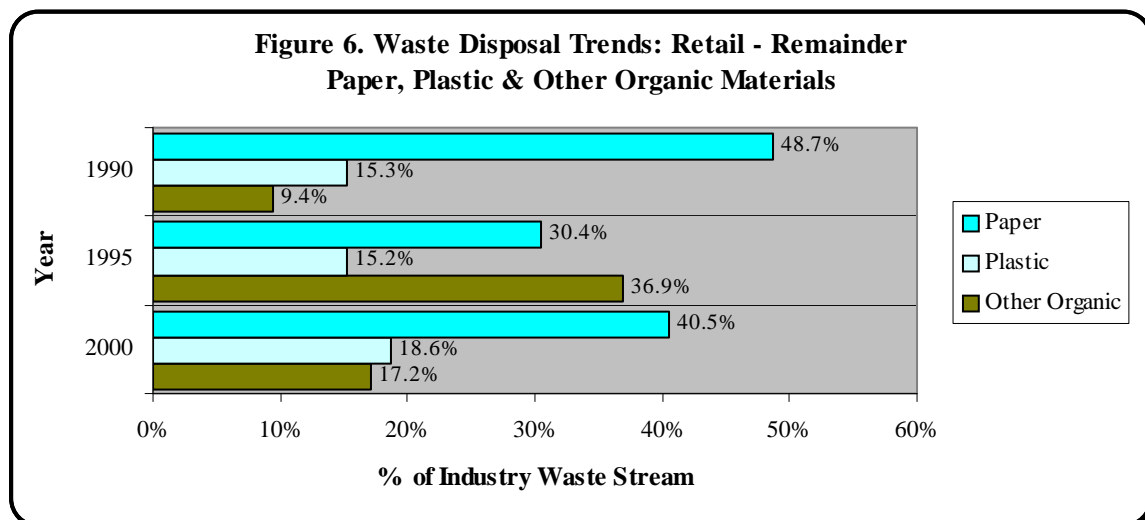


Figure 6 depicts waste disposal trends of *Paper*, *Plastic*, and *Other Organic* waste for the years 1990, 1995, and 2000. The amount of *Paper* disposed decreased between 1990 (48.7%) and 2000 to 40.5% of the industry waste stream. *Plastic* waste experienced an increase in the percentage of the waste stream that it comprised between 1990 (15.3%) and 2000 (18.6%). *Other Organic* waste experienced a slight increase between 1990 (9.4%) and 2000 (17.2%), despite the relatively large increase between 1995 (36.9%) and 2000. Although the overall waste disposed by the industry has decreased, *Paper* waste also decreased, but *Plastic* and *Other Organic* waste increased. Opportunities to reduce this waste continue to exist, as discussed in the “Waste Diversion Tips” section that follows the section on “Waste Diversion Accomplishments”.



WASTE DIVERSION ACCOMPLISHMENTS

Businesses can reduce the volume of materials that are disposed in landfills, and in turn save money on disposal costs, by following the solid waste management hierarchy as set forth by the California Integrated Waste Management Board. The hierarchy sets out a preferred approach for dealing with waste. In order of preference this is:

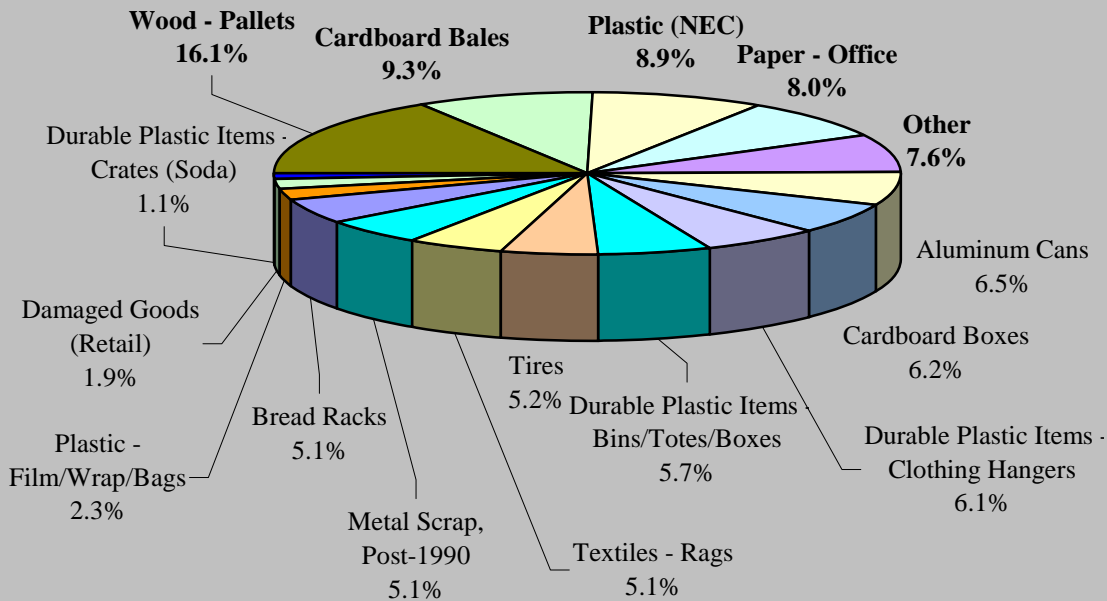
- **Source Reduction** – preventing waste at its source by using less of a material in the first place and/or repeatedly using an item or items
- **Recycling and Composting** – *recycling*: the process by which materials otherwise destined for landfills are collected, remanufactured, and purchased; and *composting*: the biological decomposition of organic materials such as leaves, grass clippings, brush, and food waste into a soil amendment
- **Transformation** – incineration of municipal solid waste; not including composting or biomass conversion
- **Landfilling** – the process by which residual solid waste is placed in a landfill, which is a physical facility used for the disposal of residual solid wastes (trash and garbage) on the earth's surface and between layers of earth

Businesses in the City of Los Angeles have made significant accomplishments in the diversion of solid waste from landfills. The City of Los Angeles conducted waste diversion and recycling audits during the year 2000 and collected information indicating that the ***Retail Trade – Remainder*** industry diverts 83,537 tons of waste from landfill disposal each year through waste prevention, reuse, recycling, and composting programs. Figure 7 depicts the material sub-category types that were diverted from landfills in 2000. The top five materials diverted are Wood – Pallets, Cardboard Bales, Plastic (NEC)⁶, Paper – Office, and Other.

Please note that the “Other” category is comprised of a group of material types that individually were below 1.0% of the total diverted materials. In order from most to least (by weight), the top five are Paper – Computer; Computers; Furniture; Metal Scrap, Post-1990; and Toner Cartridges.

⁶ Plastic (NEC) means Plastic, Not Elsewhere Classified.

Figure 7. Waste Diversion Material Sub-Category Types, Year 2000
Retail Trade - Remainder



WASTE DIVERSION TIPS

Figures 2, 3 and 4 indicate that *Paper*, *Plastic* and *Other Organic* materials comprise the majority of the **Retail – Remainder** industry waste stream. Businesses in this industry group should target these material categories for waste diversion programs through **source reduction** and **recycling** activities. Most materials are eligible for recycling programs in their existing forms, except for Remainder/Composite (R/C) materials, which are not. Programs for R/C materials should focus on source reduction activities, unless an opportunity to separate recyclable components of the material exists, as discussed below. Tables 1, 2 and 3 contain tips for achieving waste diversion programs for the top sub-categories (by weight) of the *Paper*, *Plastic* and *Other Organic* material categories.

Table 1. Waste Diversion Tips: Paper

CARDBOARD		TONS PER YEAR (2000): 17,894	% OF INDUSTRY WASTE STREAM: 16.3%
Source reduce	Encourage suppliers to deliver goods in reusable containers (plastic, wood, or metal) that they take back. This practice reduces the need for disposal or recycling on your part, and may save your suppliers money, possibly reducing your costs.		
Recycle	Source-separate for recycling collection. If your business has large amounts of cardboard, obtain a baler. If your business does not generate enough cardboard to justify a baler, request a bin from your waste hauler or a local recycler. If this is too expensive, consider teaming up with other local businesses to share the costs for recycling service.		
R/C PAPER		TONS PER YEAR (2000): 9,205	% OF INDUSTRY WASTE STREAM: 8.4%
Source reduce	<p>Since this material is not recyclable, see the definition for R/C Paper on page 3 to identify types of this paper that your business uses, and that you can reduce or eliminate the use of.</p> <p>Prevent recyclable paper from becoming R/C Paper by using separate containers to discard paper and food waste. Tossing food into the same container as recyclable paper contaminates the paper, which can no longer be recycled.</p> <p>Utilize reusable drinking cups/mugs instead of paper cups.</p> <p>Replace "Post-it notes" by using reused paper and paper clipping it to documents. "Post-its" are a contaminant for recycling because of the self-adhesive strip.</p> <p>In employee and customer restrooms, replace paper towel dispensers with hot air hand dryers.</p>		
OTHER MISCELLANEOUS		TONS PER YEAR (2000): 7,199	% OF INDUSTRY WASTE STREAM: 6.6%
Source reduce	<p>See definition of Other Miscellaneous paper on page 3 to identify types of this paper that your businesses uses, and that you can reduce or eliminate the use of.</p> <p>Avoid using goldenrod and fluorescent paper.</p>		
Recycle	Source-separate for recycling collection. Keep separate from food to ensure recyclability. When food is discarded with Other Miscellaneous Paper it becomes R/C Paper and cannot be recycled.		

Table 2. Waste Diversion Tips: Plastic

FILM		TONS PER YEAR (2000): 7,577	% OF INDUSTRY WASTE STREAM: 6.9%
Source reduce	<p>Use, or ask vendors to use, large "rubber bands" instead of shrink-wrap to secure items on pallets.</p> <p>Reuse shrink-wrap as padding in shipments.</p>		
Recycle	Recycle stretch wrap used to secure boxes on pallets, damaged bags and other scrap plastic.		
R/C PLASTIC		TONS PER YEAR (2000): 6,815	% OF INDUSTRY WASTE STREAM: 6.2%
Source reduce	<p>Since this material is not recyclable, see the definition for R/C Plastic on page 3 to identify types of this material that your businesses uses, and that you can reduce / eliminate the use of.</p> <p>Reuse packaging materials such as plastic bubble packaging, foam packing blocks, packing peanuts, and plastic strapping or send to a facility that may be able to use the items, such as Mailboxes, Etc. or local schools.</p> <p>Utilize reusable drinking cups/mugs instead of disposable plastic cups such as Styrofoam.</p>		
Recycle	Consider separating and recycling the recyclable parts of the material. There may be HDPE, PETE, or film plastic components of a R/C Plastic that can be source-separated and recycled.		
DURABLE PLASTIC ITEMS		TONS PER YEAR (2000): 4,388	% OF INDUSTRY WASTE STREAM: 4%
Source reduce	Use less of this material by identifying ways to reduce it or eliminate it from the waste stream.		

Table 3. Waste Diversion Tips: Other Organic

R/C ORGANIC		TONS PER YEAR (2000): 10,358	% OF INDUSTRY WASTE STREAM: 9.4%
Source reduce	Since this material is not recyclable, see the definition for R/C Organic on page 3 to identify types of this material that your businesses uses, and that you can reduce / eliminate the use of.		
Recycle	Consider separating and recycling the recyclable parts of the material.		
FOOD		TONS PER YEAR (2000): 6,066	% OF INDUSTRY WASTE STREAM: 5.5%
Source reduce	Only pack/order what you eat to avoid food waste. If there is a significant quantity of unsellable but edible food waste, consider donating to local food banks and charity groups.		

OTHER WASTE DIVERSION IDEAS

Even though the following materials are not part of the top material sub-categories, some comprise a large portion of the waste stream and should be targeted for waste diversion programs. Consider the waste diversion tips in Table 4 below.

Table 4. Other Waste Diversion Ideas

ITEM	SUGGESTED ACTION
Office Paper	Use e-mail whenever possible instead of printing documents; establish a policy of double-sided photocopying and printing; make scratch pads out of single-sided paper; circulate one copy of memos and reports for review instead of printing hard copies for everyone; and store and access as much information as possible using computers. Source-separate for recycling collection. Keep separate from food to ensure recyclability. When paper is discarded with food it becomes R/C Paper and can no longer be recycled.
Pallets	Reuse pallets or ask suppliers to take them back. For excess pallets, store them on site for collection by a pallet reuse company. Pallets that are not in reasonable condition may be dismantled and used as fire wood or shredded for boiler fuel or landscaping mulch. Employees or the general public may use them for projects at home. If possible repair and reuse damaged pallets on-site.
Green Waste	If your facility has a lawn, reduce grass trimmings by leaving clippings directly on the lawn instead of bagging them for disposal. Not only will this reduce waste, but it will also lead to a healthier lawn by returning nitrogen to the soil. Landscape using plants that grow slowly or have enough space so they do not need to be constantly trimmed.
Toner Cartridges	Send computer printer and photocopier toner cartridges back to the vendor for re-manufacturing.
Equipment	Donate reusable office and other equipment to local charities. List available items for donation on the County of Los Angeles' materials exchange web site, also known as LaCoMAX, at http://ladpw.org/epd/lacomax . Also, contact L.A. Shares at 213-485-1097 for donation information.
Recycled-Content Products	Purchase recycled-content products, such as office paper, toner cartridges, toilet paper, and paper towels. If too expensive, join a buying cooperative program to reduce costs. Contact the City for more information on recycled-content products.
Construction Materials	For construction projects, mandate recycling and waste reduction in contracts. Items that can be recycled include lumber, metal, drywall, asphalt, and concrete.

RECYCLING TIPS

INCREASING THE AMOUNT OF RECYCLABLE MATERIALS

- Keep food and other contaminants separate from materials that are recyclable. For example, when food is discarded with paper, it becomes R/C Paper and cannot be recycled.

LARGE QUANTITIES OF RECYCLABLE MATERIALS

- Determine the materials with the largest volumes of waste and target them for recycling. The greater volume of materials you generate, the more likely you are to be paid for the materials.

SMALL QUANTITIES OF RECYCLABLE MATERIALS

- If you have recyclable materials in small quantities, consider paying for recycling collection as long as the cost is less than what you pay for waste disposal. Your company will “make money” by reducing its waste disposal costs.
- Consider teaming up with other businesses in your area to share recycling service costs and revenues.

WHEN RECYCLING COLLECTION SERVICES ARE NOT AVAILABLE

- If recycling collection services are not available from your waste hauler or recyclers, work with employees or local individuals to collect and transport recyclable materials from the business.

POLICIES THAT BUSINESSES CAN IMPLEMENT

Policies that will help businesses to implement and uphold waste diversion programs include:

- Develop and commit to responsible solid waste management plans with emphasis on source reduction and recycling activities.
- Continually monitor the effectiveness of solid waste management programs facility-wide and in individual departments.
- Dedicate the necessary funding and personnel resources to ensure the ongoing success of waste diversion programs.

MEASURES PROPOSED BY THE CITY OF LOS ANGELES

In addition to programs and policies that businesses can implement on their own, the City proposes to provide the following support services to help the *Retail Trade – Remainder* industry to divert waste from landfills:

- Technical assistance to businesses expressing an interest in developing and implementing effective waste diversion programs.
- Publicly recognizing and promoting businesses that demonstrate high solid waste diversion rates and a strong commitment to waste diversion.
- Establishing a working relationship with industry-related associations for the purposes of enhancing training programs and communicating plans and progress with waste diversion programs.
- Assisting in the design of tracking programs for the purpose of documenting waste diversion programs.
- Tracking and monitoring industry disposal and diversion rates through periodic sampling and surveying of businesses and biannually re-evaluating waste diversion opportunities.
- Identifying sources of recycled-content products for the industry and providing guidelines for purchasing contract modifications that support procurement of recycled products.

CASE STUDY FRY'S ELECTRONICS

Location:	6100 Canoga Avenue Woodland Hills, CA 91367	Type of Business:	Retail Outlet
		SIC Major Group:	53
		Employees:	280
Contact Person(s):	Todd Smith	Trash Hauler:	Not available.
Contact Number:	(818) 227-1000	Recycler(s):	Not available.

BUSINESS OVERVIEW

Fry's Electronics has demonstrated a strong commitment to waste diversion by practicing the corporate policies of recycling toner cartridges, electronics, and cardboard boxes. Descriptions of Fry's Electronic's unique waste diversion programs follow.

Waste Disposal Program. Fry's does not have trash and recycling bins at their facilities. Instead, they backhaul trash, cardboard and toner cartridges to their Anaheim branch for consolidation with materials from other Southern California Fry's locations prior to disposal and recycling.

Electronics Recycling Program. Warrantied merchandise that is returned by customers due to malfunctions is sent to the San Jose branch for testing and diagnosis. Staff repairs, refurbishes or donates salvageable electronic goods. Only a small percentage of these electronic items are hauled away as trash.

Two materials are currently being targeted for diversion: paper and shrink-wrap. Through the technical assistance provided by the City of Los Angeles Sanitation Bureau, Fry's plans to divert these materials from landfills in the near future.

MATERIALS DIVERTED

The following table presents the four materials that Fry's Electronics diverts from landfills through recycling and source reduction activities on an annual basis.

MATERIAL	ANNUAL TONS	DESCRIPTION
Cardboard	27	Recycle 3 cubic yards per week
Toner cartridges	0.30	Recycle 10 (5 pound) toner cartridges per month
Electronics	0.18	Recycle 30 pounds of electronics per month
Office paper	0.13	Reduce paper use through electronic communication.
TOTAL	27.61	YEAR 2000

COST SAVINGS / REVENUE

Annual savings are about \$30,000, due to costs saved in tipping fees at landfills.

SUMMARY OF RESULTS

Fry's uses both traditional and non-traditional programs in their recycling efforts. As outlined above, they divert approximately 28 tons of materials from disposal at local landfills annually. Additionally, they are continuing to explore new opportunities for recycling and reuse, and plan to implement new recycling programs as needed.