Zero Waste Action Plan

For the City of

Glendale, California

Zero Waste Associates

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and **Gary Liss & Associates**
with Support from
Hidden Resources and
Earth Resource Foundation

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Supplemental Documents Included with this Zero Waste Action Plan

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Executive Summary

1A. Existing System

The City of Glendale (the "City") provides collection services for all single-family residences (1-4 units), 80% of apartment buildings with 5 units or more, and 15% of businesses (mostly small ones). All 1-4 units have recycling. Only 45% of 5-unit multifamily dwellings (MFDs) have recycling bins. All recycling collection services are provided by Glendale for free. Sixty-two private haulers provide 85% of commercial collection within the City. This is an openly competitive system, with five large companies - Athens, Southland, Crown, Waste Management and Consolidated - possessing more than 80% of the business. Some provide recycling services for free, and some charge. The majority of refuse collected is hauled to the Scholl Canyon Landfill.

In addition to Glendale, six other jurisdictions use Scholl Canyon. They include La Canada Flintridge, Pasadena, South Pasadena, San Marino, Sierra Madre, and the adjacent unincorporated parts of Los Angeles County. Tip fees are currently $48.99/ton, and estimated to increase to $90/ton after the Landfill closes and rail haul is established. Glendale's Environmental Management Division estimates that Scholl Canyon will reach capacity in 2020. Annual tons disposed in this landfill are down from a peak of 203,000 in 2007 to roughly 162,000 tons in 2009.

The estimated worth of the materials disposed of in the landfill in 2009 is over $8 million. This is the value of the material baled or ready for sale, and although it does not include the processing costs, it also does not include avoided landfill costs. Reusable items alone are estimated to be worth nearly 25% of this amount, or close to $2 million. Fifty percent recovery of these reusables should be worth $4 million per year to the City in combined savings and potential new revenue.

1B. Zero Waste Recommendations

Zero Waste Policies - This Zero Waste Action Plan ("Plan") calls for Glendale to adopt a Zero Waste Resolution to increase its diversion rate from landfills and incinerators from 61% in 2009 to 70% by 2015 of current disposal tonnage of the 162,000 tons per year, and, if feasible, 90% by 2025. The year 2025 was selected as a target year because this is approximately when the landfill at Scholl Canyon is scheduled to close. By diverting more materials, the life of the existing landfill could be extended significantly, particularly if the communities that share Scholl Canyon implement similar Zero Waste resource management initiatives.

Glendale is already a member of the California Product Stewardship Council, and adoption of an Extended Producer Responsibility (EPR) resolution is a critical next step in protecting public health and reducing resource management costs and liabilities by phasing out toxic and disposable products. A Glendale EPR resolution, as illustrated in the sample resolution in Appendix D, could:

- Establish a preference for take-back provisions in purchasing contracts,
- Specify a range of problem products to investigate for local actions,
- Call on state government to pass producer responsibility legislation.

Many communities in Los Angeles County have already adopted such resolutions. Glendale could also compile a list and publish it on its website of businesses or non-profits that will take back products and packaging from customers that are otherwise difficult to reuse, recycle or compost locally. The City could also join other local communities in the area to adopt local take-back policies and programs for problematic materials. The most important such step would be to **join with Los Angeles County in implementing a citywide ban on stores distributing free single-use plastic shopping bags**. A draft plastic bag ordinance, modeled after the one recently adopted by the County, is included as Appendix B.

Mandatory Commercial Recycling - Glendale should consider a requirement that all commercial discards be subject to either source separation of recyclables or be taken to a certified mixed waste processing facility with a high recycling rate, with penalties on haulers for non-compliance. The City should not allow commercial discards to go directly to the landfill without processing first. This would allow Glendale to maintain its open, competitive marketplace for hauling services within the framework of the new statewide requirement of mandatory commercial and multifamily recycling. It would

also strengthen the City's role to ensure that everyone receives recycling services by maintaining the policy of collecting commercial, multifamily, and residential recyclables for free.

Recovering Energy and Compost from Organic Discards – While mandatory commercial recycling will help recover the vast majority of clean paper and other common recyclables, it will not address the need to recycle food waste, soiled paper, horse manure, and other organic materials with low recycling value. Fortunately, there is a technology, namely anaerobic digestion (AD), that can be used to cost-effectively recover both energy, in the form of methane, and compost from such organic waste. AD is the only waste conversion technology that qualifies for State waste diversion credit and Renewable Portfolio Standard (green energy) credits. If an AD facility were developed at Scholl Canyon Landfill it would also address the problems of how to recycle local yard trimmings and maintain Landfill host fees once the amount of waste at the Landfill (and the need for yard trimmings as alternative daily cover) declines after mandatory commercial recycling is required.

Once and if such an AD facility were developed, Glendale could include in its Mandatory Recycling Ordinance (MRO) the provision to keep "wet" discards (which include yard trimmings, food scraps and soiled paper, manure and other "putrescibles") separate from "dry" discards. Wet discards would be collected for processing through AD and dry products and materials would be reused, repaired or recycled. There are already two programs in Southern California (San Fernando and Arvin) where Community Recycling allows residents to include food scraps in their yard trimming containers, with the waste processed for composting. As over half of the remaining materials being landfilled are compostable, aggressively pursuing this organics strategy and a mandatory commercial recycling program will allow the City to divert more than 75% of its total discard stream from landfills.

Commercial Waste Reduction Initiative – Most of Glendale's waste reduction programs have focused on the residential sector even though more than half of local waste is generated by non-residential sources. A major reason is the wide diversity of the types of waste and building arrangements found in the commercial sector. While it is more difficult to implement commercial programs, there is a great potential for implementing an enormous array of waste prevention programs that can reduce costs and liabilities for local businesses. Waste prevention programs are often the most cost-effective programs for the City since, once implemented, the waste is diverted from landfill at no cost to the City. Examples include the use of returnable shipping containers, requiring suppliers to reduce unnecessary packaging, and purchasing more durable equipment and supplies.

In order to best communicate the advantages of such programs, it is recommended that the City contract for business waste reduction services that would include: workshops tailored to specific industries, waste audits, technical assistance, educational materials, and a recognition program. These services would be offered under the guidance and with the advice of a Glendale green business alliance and would incorporate insights from the field of community-based social marketing. Such a business alliance would be most valuable when and if the City includes commercial generators in a food waste recycling program that requires the separation of wet and dry discards.

Benefits to Glendale from adopting this Zero Waste Action Plan include:

- *Reduced Costs for Residents and Businesses* – All Zero Waste businesses that have been documented have saved money. Since Glendale residents can already reduce their refuse charges by subscribing to a smaller volume of refuse service, waste prevention programs and incentives can help them save money by reducing waste and recycling more.

- *Costs Gradually Shifted out of the Community* – As EPR programs are implemented, costs for household hazardous waste management will be shifted from local public agencies to manufacturers, first importers, brand owners and retailers.

- *Reduced Liabilities* – Every ton buried in a landfill remains the responsibility of the generator, under federal Superfund law. If there are any problems stemming from the landfill (e.g., from leaks of gas or liquids), attorneys involved will send a bill to everyone who ever used that facility, proportionate to the amount generated. This will affect most communities with regard to all residential discards, and for commercial discards if the communities assume responsibility for those discards in directing exclusive contracts.

- *Increased Efficiency* – When sustainability audits are conducted for businesses documenting all the energy, materials and products they buy to create their own products, they find that nationally only 6% is actually used for producing products, and 94% is wasted. Communities that pursue zero waste will help their businesses become more efficient and sustainable.

- *Improved Green Commitment* – This is of increasing importance to communities and elected officials.

2. Background and Existing System

2A. Scope of Work

The scope of work for this Zero Waste Action Plan included identifying generation amounts and monetary value of Glendale's discards, available recycling facilities, potential GHG emissions reductions, current public opinion towards existing and proposed source reduction, recycling, composting and comprehensive resource management programs, and state and local regulatory frameworks. This information was used to present realistically obtainable interim waste reduction targets and overall Zero Waste goals. The Plan includes policies, ordinances, technical assistance and education programs Glendale can adopt or provide for the benefit of residents and businesses.

Specific issues have been addressed for planning purposes. An analysis is provided of the effectiveness and cost of the City's options in meeting the new state mandate that will require all businesses to recycle. The Plan addresses all commercial discards - including multifamily (5+ unit dwellings) and construction/demolition debris – and what type of recycling systems should be acceptable to comply with a City ordinance (e.g. source separation recycling programs or processing at a mixed material materials recycling facility (MRF) that meets minimum certified levels of recycling).

As there are currently few programs in this area to compost food scraps and horse manure, the potential for developing a composting or anaerobic digestion facility for yard trimmings, manure and food scraps at Scholl Canyon Landfill has been evaluated. This includes the regulatory steps and obstacles to such an option, including the experience of other local compost service providers.

Results of surveys conducted with businesses and residents have been combined with public workshops to gather ideas on ways to best move Glendale towards Zero Waste.

2B. Background

Glendale has a population of 206,000 (2008) and is the third largest city in Los Angeles County. The 31 square miles the city occupies is primarily urban and its demographic make-up includes significant numbers of citizens of Armenian, Hispanic and Korean descent. City publications are often translated into Armenian and Spanish.

Glendale has its own water and power utilities, refuse collection, mass transit, and police and fire departments, and works collaboratively with the Los Angeles County Department of Public Works, Environmental Programs Division, on resource management and energy issues.

The City supports light industry dominated by Disney, its largest employer, DreamWorks and related local businesses. Disney has a Zero Waste goal. Other substantial employers include a multitude of finance firms, banks and hospitals, as well as Baskin-Robbins and Nestle.

Table 1: Businesses and Number of Employees by Sector in City of Glendale

Establishments	**Count**
Professional, scientific and technical services	810
Educational services	38
Health care and social assistance	901
Arts, entertainment, recreation and other services	499
Civilian Employed	**Jobs**
Agriculture, forestry, fishing and hunting, mining	137
Construction	6,017
Manufacturing	6,816

Wholesale trade	2,797
Retail trade	11,484
Transportation, warehousing and utilities	4,299
Information	5,457
Finance and insurance, real estate and rental/leasing	9,201
Professional, scientific, administrative, waste, management	11,545
Educational services, health care, social assistance	19,968
Arts, entertainment, recreation, accommodation, food services	7,761
Other services (excluding public administration)	6,419
Public administration	2,869

Source: U.S. Census Bureau

2C. Existing Resource Management, Recycling and Waste Disposal System

The City of Glendale serves all single-family homes (1-4 units), 80% of apartments (5 units or more) and 15% of businesses (mostly smaller in size). All in the single-family category have recycling. Only 45% of multifamily dwellings have recycling bins. Glendale offers recycling services for free.

There are 62 commercial haulers in Glendale (most of whom go to Scholl Canyon) that pay 15% of their gross receipts as a franchise fee, generating $1.1 million for the City annually. This is an open, competitive system. Large companies have more than 80% of the business and include: Athens Services, Southland Disposal, Crown Disposal, Waste Management and Consolidated Disposal Services.

Some of these haulers provide recycling services for free, and some charge. As mentioned, the City offers recycling services for free, but charges for refuse collection. Residential rates are $18.34 for a 100-gallon cart and $11.72 for a 64-gallon cart.

City recycling bins are white, recycling carts are gray, yard trimming carts are green, and refuse carts are burgundy. At Glendale schools, recycling containers for bottles and cans have blue lids.

Glendale has its own Recycling Center that "serves as the central processing facility for recyclable material collected from the City's multifamily programs, the new three pass automation system, citywide drop-off stations, and office paper recycling programs."[1]

The Allan Company runs the recycling center under contract, and is setting up a new portable sort line (80' long with disk screens, trommel and 8-15 sorting staff) at its materials recovery facility in Glendale. Currently, Allan Company is paying $120/ton for OCC, $65/ton for ONP, $1.70/pound (#) for aluminum cans CRV, $0.93/# for plastic CRV, $0.01/# for Plastic 1 scrap, $0.51/# for plastic 2 CRV, $0.02/# for plastic 2 scrap, $0.105/# for glass CRV, and $0.01/# for tin.

Glendale's Scholl Canyon Landfill is operated by the Los Angeles County Sanitation District (LACSD) under a Joint Powers Agreement (JPA) with the City of Glendale, and the land is owned jointly by Glendale (80%), Los Angeles County (15%), and Southern California Edison (5%).

Scholl Canyon has both an active and inactive site, which cover a combined total of 360 acres. The inactive site closed in 1973, after three million tons of trash and yard trimmings were buried there. An 18-hole golf course has been built on top of this portion. Scholl Canyon is permitted to receive 1,600 tons/day of refuse. Currently about 800 tons per day are received.

"An ordinance passed by the City of Glendale limits disposal at the landfill to solid wastes generated within the Los Angeles County incorporated cities of Glendale, La Canada Flintridge, Pasadena, South Pasadena, San Marino, Sierra Madre; the Los Angeles County unincorporated communities known as Altadena, La Crescenta, Montrose; the unincorporated area bordered by the cities of San Gabriel, Rosemead, Temple City, Arcadia, and Pasadena; the unincorporated area immediately to the north of Arcadia, and Pasadena; and the unincorporated area immediately to the

[1] Source: http://www.ci.glendale.ca.us/public_works/recycling_center.asp

north of the City of San Marino bordered by the City of Pasadena on the west, north and east sides."[2] Twenty-five percent of the gate revenue goes to the City of Glendale as a "host fee." Currently, tip fees tip fees for municipal solid waste are $48.99/ton, and estimated to increase to $90/ton with rail haul.

Glendale's Environmental Management Division estimates that Scholl Canyon will reach capacity in 2020. Some 72,000 tons of discards were collected by the City and disposed of in Scholl Canyon in 2009. This tonnage represents 45% of the total of discards generated and disposed of from the City. Approximately 90,000 tons were collected by private haulers, public agencies, and self-haulers such as residents, landscapers and roofers. Disposal tonnage has dropped from a peak 204,000 tons in 2006 to 162,000 tons in 2009.

[2] Source: http://www.lacsd.org/about/solid_waste_facilities/scholl/default.asp

3. Analysis

3A. Existing Discard Stream in Market Categories

Estimated Market Commodity Amounts

Applying the City of Glendale's 162,000 tons of discards disposed of in 2009 to the CIWMB Statewide Waste Characterization Study and regional data (e.g. Los Angeles waste characterization studies), the following percentages and annual tonnages have been estimated for each of 12 market categories.

Table 2: Commodity by Percentage of Total and Tons

Market	%	Tons
1. Reuse	2.0	3,240
2. Paper	27.0	43,740
3. Plant Debris	5.5	8,910
4. Putrescibles	17.0	27,540
5. Wood	4.0	6,480
6. Ceramics	8.0	12,960
7. Soils	10.0	16,200
8. Metals	4.0	6,480
9. Glass	2.0	3,240
10. Polymers	8.0	12,960
11. Textiles	2.0	3,240
12. Chemicals	0.5	810
No market	10.0	16,200
Total	**100.0**	**162,000**

3B. Service Opportunities Analysis

In a Zero Waste systems approach, one of the first steps required is an inventory by service area of the materials targeted for collection, processing and delivery to reuse, repair, recycling and composting facilities. The analysis includes all materials generated. Solid waste facilities should accommodate self-hauled as well as government and private service-provider materials. This inventory does not recognize landfills or incinerators as suitable facilities, and identifies voids or gaps in valid materials markets and services to be "service opportunities" for someone to provide that service in the future. The inventory also identifies programs and facilities inside Glendale that can repair, reuse, recycle or compost discarded materials generated.

Discards are identified by standard classifications (typical discard sort categories) and sorted into twelve market categories. For each classification, market options (non-burn or bury) are identified. Products or packages that have unacceptable disposal options and/or require new services are identified through this process as well.

Issues of access, opportunity, availability and knowledge come next. In many cases (e.g. disposable diapers), the inventory shows that there is no reuse, recycle or compost option. These items can be addressed as producer responsibility issues including whether a particular product should be redesigned before being allowed to be sold in Glendale.

The following table shows the initial result of the market inventory. Where voids exist, market opportunities for services arise.

Table 3: Product and Materials Market Inventory

Material Category	Programs/Facilities
1. Reusables Appliances (e-waste) White Goods Durable plastic products Usable Textiles Mattresses Furniture Books Building Materials Other reusables and repairables	Catholic Charities (Loaves & Fishes) (818) 409-3080 Disabled American Veterans' Thrift Shop (818) 244-2221 Glendale Adventist Thrift Store (818) 409-8056 GAR Services (Glendale Association for the Retarded) (818) 242-2434 Glendale Public Library (818) 548-2021 Goodwill Industries (drop-off) (818) 248-9923 Goodwill Industries (store and drop-off) (818) 242-9399 Lion's Club Recycle for Sight Program (at Daniel's LA Shares - www.lashares.org Transfer & Storage) (818) 241-2169 Mail Boxes Etc. (818) 241-4011 The Salvation Army (818) 242-6557 The Salvation Army (800) 958-7825 Thrift Alley – Assistance League of Glendale (818) 246-2294 Glendale Recycling Center 540 W. Chevy Chase Drive computers, televisions, batteries, and tabletop electronic waste (printers, fax machines, telephones, etc.)
2. Paper Cardboard White ledger Newsprint Magazines / Catalogs Other office paper Paperboard Other / Composite paper	Glendale Recycling Center 540 W. Chevy Chase Dr. Glendale, CA 91204 Cardboard, newspaper, white ledger, colored ledger, computer paper
3. Plant Debris Leaves & Grass Prunings Branches & stumps Yard trimmings	Glendale collects yard trimmings at curbside, including grass clippings, leaves, brush, shrubbery prunings, tree trimmings, and tree limbs less than 6 inches in diameter. Glendale provides home composting bins at no charge to those that attend educational workshops.
4. Putresibles Food scraps Fish and meat scraps Sewage sludge	Community Recycling (Sun Valley) collects food from supermarkets for composting. Glendale provides free home composting bins and discounted worm bins that can be used to compost most food scraps. Sewage sludge is recycled as a soil amendment by the City of Los Angeles which processes City of Glendale sewage.

5. Wood Untreated wood Treated wood	Construction and Demolition Debris Processing Centers: Allied Waste Falcon Refuse Center (Wilmington) American Waste Pendleton Facility (Sun Valley) California Waste Services (Los Angeles) Community Recycling (Sun Valley) Construction and Demolition Recycling Inc. (South Gate) Direct Disposal (Los Angeles) Downtown Diversion (Los Angeles) Looney Bins/East Valley Diversion (Sun Valley)
6. Ceramics Concrete Asphalt paving	Glendale operates an inert material recycling program at its closed Brand Park Landfill located at 1601 West Mountain Street. Recycled rock, concrete and asphalt from City projects is crushed at this facility and used as base material for roadway reconstruction projects. Ceramics are also processed at the construction and demolition debris processing centers listed above and numerous inert material recyclers.
7. Soils Gypsum board Fines	Construction and demolition debris processing centers recycle such materials into either soil amendments or alternative daily cover for landfills
8. Metals Auto bodies Aluminum cans Steel cans Other Ferrous metals Other Non-ferrous	Glendale Recycling Center 540 W. Chevy Chase Dr. Glendale, CA 91204 Aluminum cans, scrap aluminum, brass and copper All ferrous and non-ferrous metals
9. Glass Clear glass Green glass Mixed glass Brown glass Window glass Other glass	Glendale Recycling Center 540 W. Chevy Chase Dr. Glendale, CA 91204 Glass bottles
10. Polymers # 1 PET #2 HDPE	Glendale Recycling Center 540 W. Chevy Chase Dr. Glendale, CA 91204

#3 PVC #4 LDPE #5 PP # 6 PS #7 other labeled plastic Other plastics Asphalt Roofing Tires	All plastic bottles and containers (#1-#7)
11. Textiles Poly fibers Cotton and wool	Goodwill Industries (drop-off) (818) 248-9923 Goodwill Industries (store and drop-off) (818) 242-9399 The Salvation Army (818) 242-6557 The Salvation Army (800) 958-7825
12. Chemicals Used motor oil Household Hazardous Wastes Disposable Diapers Medical waste Batteries	Glendale Environmental Management Center (EMC). Besides the EMC, Glendale residents may now also recycle their used household batteries at certain public counters throughout the City. Nine volt, AA, AAA, C cell, D cell, lithium, and mercury button batteries are accepted at the following "Satellite" locations (using brown battery recycling containers): all City Fire Stations, Community Centers at Pacific Park, Sparr Heights, and Maple Park, Glendale Central Library, Brand Library and Art Center, Library Connection at Adams Square, Grandview Branch Library, Montrose-La Crescenta Branch Library, City Clerk's Office, Public Works Administration, Glendale Recycling Center.

3C. Program and Facility Analysis

A review of the service opportunities show that there are a few areas where new rules and redesigned storage, collection and processing systems would allow the capture of more materials. The following table shows some of those challenges:

Table 4: Challenges Associated with More Difficult to Handle Discards

Material	**Challenge**
Food scraps (including fish and meat)	Processing capacity is needed for Southern California
Used building materials	Need 12-category Resource Recovery Park
Treated wood	No markets, these products require redesigning
Window and other glass	Need markets for window and other glass
#3-#7 and other plastic	Need better local markets for some and redesign or bans for others
Diapers	No markets, these products require redesigning

Essentially, the most opportunity exists for reusable and organic recovery systems. There is a significant amount of work that needs to be done in the area of encouraging producers to take responsibility for products and packaging they produce that are not safe for landfilling or disposing down the drain.

3D. Commodities Analysis

The following table uses 2009 numbers to show, by commodity, the amount discarded, value per ton and total value of material disposed of in the landfill if recovered. The estimated worth of the materials disposed of in the landfill in 2009 is over $8 million, with an average per ton value of $75.66. Of this amount, reusable items are estimated to be worth nearly $2 million. This is the value of the material baled or ready for sale, and although it does not include the processing costs, it also does not include avoided the landfill cost. A fifty percent recovery of reusables alone should be worth $4 million per year to the City in savings and potential new revenue.

Table 5: Estimated Market Value of Glendale's Discards

Market	%	Tons	Value ($/ton)	Total Value
1. Reuse	2.0	3,240	$550	$1,782,000
2. Paper	27.0	43,740	$50	$2,187,000
3. Plant Debris	5.5	8,910	$ 7	$62,370
4. Putresibles	17.0	27,540	$7	$2,187,000
5. Wood	4.0	6,480	$8	$51,840
6. Ceramics	8.0	12,960	$4	$51,840
7. Soils	10.0	16,200	$7	$113,400
8. Metals	4.0	6,480	$50	$324,000
9. Glass	2.0	3,240	$10	$32,400
10. Polymers	8.0	12,960	$100	$1,296,000
11. Textiles	2.0	3,240	$100	$324,000
12. Chemicals	0.5	810	$15	$12,150
No market	10.0	16,200	0	0
Total	**100.0**	**162,000**	**$75.66**[3]	**$ 8,424,000**

Sources: Waste composition data from CalRecycle's statewide waste characterization studies; current market value data from www.GRN.com.

[3] Average value per ton

3E. Environmental Benefits from Recovery of Resources

Starting from the landfill tons presented above in Table 5, the following table represents the amount of greenhouse gases (GHG) that are either emitted or eliminated by landfilling and/or recycling and composting using nine of the twelve categories of resources. The results are derived from the U.S. Environmental Protection Agency's Waste Reduction Model (WARM). Three of the categories - reusables, textiles and chemicals - are not represented in the WARM Model, and could not be included in calculations.

Table 6: EPA WARM Model Summary: Recycling/Composting vs. Landfilling

Material	Tons Landfilled	Total MTCE*	Tons Recycled / Composted**	Total MTCE	Total MTCE Difference***
Glass	3,240	34	3,240	(246)	(281)
Dimensional Lumber	6,480	(1,171)	6,480	(4,339)	(3,168)
Food Scraps	27,540	5,635	27,540	(1,485)	(7,119)
Yard Trimmings	8,910	(266)	8,910	(480)	(214)
Mixed Paper	43,740	549	43,740	(41,874)	(42,422)
Mixed Metals	6,480	69	6,480	(9,552)	(9,621)
Mixed Plastics	12,960	137	12,960	(5,289)	(5,426)
Mixed Organics	16,200	1,386	16,200	(873)	(2,259)
Aggregate	12,960	137	12,960	(28)	(165)
Total	**138,510**	**6,510**	**138,510**	**(64,167)**	**(70,676)**

Notes :
*MTCE = Metric Ton Carbon Equivalent
** Represents the GHG emissions if recycled and/or composted.
*** Shows the reduction in carbon emissions (70,676 MTCE) if all this material was recycled and/or composted.

The WARM Model is available at:
http://www.epa.gov/climatechange/wycd/waste/calculators/Warm_Form.html

3F. Results of Stakeholder Surveys

Surveys were conducted asking businesses and residents to share their thoughts and ideas about existing and potential waste reduction and resource management programs the City of Glendale offered or could implement. A series of public workshops were also held to gather ideas from residents and businesses on ways to move Glendale towards Zero Waste.

Phone interviews were selected as the preferred method of outreach as well as surveys that were given to all workshop attendees. Phone surveys focused on food and yard trimming generators. Results of the yard trimming surveys are provided in Supplemental Document 1: Compostable Organic Discard Collection and Processing Evaluation.

Survey questions to commercial food scrap generators included:

Do you do any recycling now?
What do you recycle?
Do you wish to reduce, reuse, or compost?
What happens to your food scraps? Do you have a food rescue or food scrap composting program?
Are there current barriers to doing this at your business? ___ Yes ___ No
If yes, check all the apply:
___ Lack of financial incentives
___ Property management/owners does not provide recycling onsite

___ Recycling storage constraints
___ Other (please describe)

Consultants extracted 82 restaurants, grocery stores and hotel businesses from a Web search and the Glendale Chamber of Commerce. Also four large commercial businesses were surveyed and Disney attended the workshops.

A major objective of the study was to find out if they support the three priorities for the City of Glendale to move towards Zero Waste:

- Maintain the policy of the free collection of commercial, multifamily, and residential recyclables within the framework of the new statewide requirement of mandatory commercial and multifamily recycling. Consideration of a requirement that all Glendale discards be subject to either the source separation of recyclables or be taken to a certified mixed processing facility with a high recycling rate.
- Enact, in cooperation with Los Angeles County, a citywide ban on stores distributing single-use plastic shopping bags.
- Implement programs to source reduce and compost food scraps.

All 82 businesses were contacted via phone or in person (by flyer) to attend the workshops. Twenty-four completed the survey. Sample surveys and detailed results are presented in the supplemental document: "Results of Stakeholder Surveys and Outcome of Workshops to Engage Stakeholders."

Following is a summary of survey results:

Grocery Stores - The majority of grocery stores currently recycle all of their cardboard, paper, plastic and food scraps. Food scraps are either picked up by Community Recycling & Resource Recovery or back hauled to their distribution centers for composting.

Restaurants - Five out of the ten restaurants surveyed were recycling but were not aware of the City's free recycling program. They were all interested in additional recycling including food scrap composting. Only two had food rescue programs: Chipolte and Olive Garden. The remainder of the restaurants wanted more information on food rescue methods. This group was unaware of the federal Good Samaritan Act that exempts restaurants from liability in donating food to food rescue services. All were open to additional training for their employees.

Restaurants in the Americana at Brand were also surveyed during distribution of the workshop flyer. All had recycling as it was provided by the property manager. Most restaurants were open to food scrap composting and none were currently donating their food.

Large Commercial Businesses - Disney attended and presented at our business workshop. While they have adopted a companywide goal of Zero Waste, they would like to add source separation recycling opportunities at their facilities like they have in Burbank and would support food scrap composting. The other five large commercial business surveyed were not aware of the city's free recycling program and were dependent on their property managers/owners. All were very interested in Zero Waste training for their employees.

The top three barriers to increased recycling, composting and Zero Waste initiatives for all businesses surveyed, in order of importance were:

1. Need for additional information or training about the programs

2. Property management/owners do not provide recycling onsite

3. Recycling storage constraints

Haulers and janitorial companies - Two refuse haulers and one janitorial service provider attended the workshops and are very supportive of the Zero Waste goal and action plan. Their customers are requesting recycling and green initiatives and they understand the positive environmental and economic impacts of reduce, reuse and recycle.

Plastic Bag Ban - All large grocery stores are supportive of the plastic bag ban. The California Grocers Association strongly supported the statewide plastic bag ban AB1998, which was defeated.[4] They would like to see consistency between the City and County plastic bag ban ordinances so they do not want to have separate procedures for each jurisdiction.

All residents who attended the workshop were very supportive of the plastic bag ban, which includes a fee on paper bags made from recycled paper. Most attendees already used reusable bags or were willing to do so, and greatly appreciated the reusable bags given out by the City at the workshops.

3G. Outcome of Workshops to Engage Stakeholders

Zero Waste Associates obtained public and private sector input through a series of meetings throughout the City. Consultants conducted a series of six stakeholder meetings throughout Glendale at various venues. Stakeholders from government, business and residential sectors attended the meetings.

All participants were encouraged to participate in discussions after comprehensive presentations by City staff and consultants. The survey and workshop analysis document provides a list of meeting topics, locations, dates and times. A list of all attendees who signed in is included in this document. Participants represented a diverse cross section of the population, and included hourly and salaried workers, managers, haulers, janitorial services, school district employees, community activists, consultants, retirees, entrepreneurs, concerned parents, government employees, students, teachers, homemakers, and general citizens

Meeting attendance averaged between 5-20 people. All participants were encouraged to speak after presentations by City staff, consultants and guest speakers. The consultants brought in local and statewide experts on specific subjects to provide the attendees with examples and opportunities to get engaged.

Three Zero Waste educational workshops were conducted to teach the basics of Zero Waste policies and practices to businesses and residents. While these workshops were directed at specific audiences anyone interested was invited to attend any and all workshops.

The following two-hour Zero Waste Educational Workshops were conducted:

- Zero Waste Food Service Strategies -*From Restaurants to Potlucks* - September 22, 2010
- Zero Waste Reuse & Special Discards: Supporting your Local Community - September 22, 2010
- Zero Waste Businesses: Don’t let your Bottom-line Go to Waste: Understanding and Profiting from California’s Mandatory Commercial Recycling Rule - September 27, 2010

All three workshops provided background, education and direction from Tom Brady on the following topics:

Three Priority Issues for Moving Glendale Towards Zero Waste:

- Maintain the policy of the free collection of commercial, multifamily, and residential recyclables within the framework of the new statewide requirement of mandatory commercial and multifamily recycling. Consideration of a requirement that all Glendale discards be subject to either the source separation of recyclables or be taken to certified mixed processing facilities with high recycling rates.
- Consider, in cooperation with Los Angeles County, a citywide ban on stores distributing single-use plastic shopping bags.
- Consider the recycling and composting of food scraps.

Background of each of these issues was provided, such as a discussion of the state recycling requirement, the history of bag regulation and litter problems, and options for food waste composting including lack of local markets.

[4] On November 16, 2010, a local ban was approved for unincorporated parts of Los Angeles County.

After analyzing stakeholder feedback from the initial meetings, consultants developed and presented the Zero Waste Action Plan for Glendale at the final three two-hour workshops. Theses workshops were held on October 6, 2010 at 8:30 a.m., noon and 7:00 p.m.

Over 33 residents and business attended the workshops with many participants attending several sessions. In addition to the workshops, over 100 residents were personally email or called. More than 440 businesses received personalized invitations via phone calls or emails. Over 70,000 workshop announcements were included in the Penny Saver or the local Los Angeles Times. The announcement was also published in the September City View publication.

Results of Workshops

Attendees at the first three workshops were very engaged and found all the information highly valuable. Most were unaware of Zero Waste and the opportunities it provides for positive environmental, economic and community benefits. All attendees were very supportive of food scrap composting, plastic bag bans and continued recycling services offered by the City. Many attendees were unaware of all the services provided by the City, which emphasizes the need for education, technical assistance and social marketing to implement the Zero Waste Plan. Participants were encouraged about the potential for reuse and additional or expanded programs for the restaurant, banquet and hospitality industry (including support for a Styrofoam ban).

Disney, one of the largest employers in Glendale, hosted and gave a presentation at the third workshop. The majority of attendees were Disney employees who strongly supported Disney's Zero Waste goal. They found the information presented by the City staff and consultants of great value and will be applying Zero Waste practices at their Glendale facility. They also expressed a desire for more information and training.

All participants at the final workshops strongly supported the Zero Waste Action Plan and for Glendale to adopt a Zero Waste resolution to increase its waste diversion rate from 53% in 2006 to 70% by 2015, and 90% by 2021. This group included several local haulers and janitorial service representatives, who believed Zero Waste initiatives and being part of the Zero Waste economy help their businesses.

Agendas, outreach materials and detailed summaries of participants input are included in the survey and workshop analysis document.

4. Zero Waste Recommendations

4A. Zero Waste Policies

Zero Waste focuses on reducing and designing wastes out of the system, reusing discarded materials and products for their highest and best use for their original form and function for as long as possible, then recycling and composting the rest. The Zero Waste International Alliance (ZWIA) defines Zero Waste to be:

> *"Zero Waste is a goal that is ethical, economical, efficient and visionary, to guide people in changing their lifestyles and practices to emulate sustainable natural cycles, where* ***all discarded materials are designed to become resources for others to use****.*
>
> *Zero Waste means designing and managing products and processes to systematically avoid and eliminate the volume and toxicity of waste and materials, conserve and recover all resources, and* ***not burn or bury them****.*
>
> *Implementing Zero Waste will eliminate all discharges to land, water or air that are a threat to planetary, human, animal or plant health."*

ZWIA defines the measure of success in meeting that goal to be diverting 90 percent of the waste generated by all sources (residential, business, schools, and institutions) from landfills and incinerators. When Glendale achieves that goal, it will be well on the way to Zero Waste and the program could be deemed a success.

For most Zero Waste Communities in California, they have selected an interim target of between 70-75% diversion within about 5 years, and 90% diversion by 2020-2025. Glendale most recently posted a diversion rate of 61% in 2009 (calculated by comparing existing waste disposal and total per capita waste generation).

This Plan focuses on four major areas where Glendale can move toward Zero Waste through: (1) official policies, (2) mandatory commercial recycling, (3) recovering energy and compost from organic waste, and (4) commercial waste reduction initiatives. In terms of policies, The City has built its waste reduction efforts around two major policies.

The first is that free, convenient, City-provided recycling services should be available to all residential and non-residential waste generators, with the cost divided between City refuse fees and AB 939 fees on permitted private refuse haulers. Examples of the City's free recycling services include curbside collection of recyclables, drop-off recycling centers, and free home composting bins. Technical assistance and educational materials are also provided at no charge.

The second major policy is that there should be City-provided financial incentives for the generation of less waste. Examples include volume-based discounts for generators of less waste and a municipal recycling center that purchases recyclables from the public.

Glendale is also a member of the California Product Stewardship Council which tries to "shift California's product waste management system from one focused on government funded and ratepayer financed waste diversion to one that relies on producer responsibility in order to reduce public costs and drive improvements in product design that promote environmental sustainability."[5] This section of the Plan recommends additional policies that the City could adopt to help it achieve Zero Waste.

First, this Plan calls for Glendale to adopt the Zero Waste Resolution included as Appendix A to increase its waste diversion rate from 61% in 2009 to 70% diversion by 2015 of current disposal tonnage of the 162,000 tons per year and 90% diversion by 2025. The 70% is based on the expected implementation of a comprehensive organics recovery program and mandatory commercial recycling program that diverts about two-thirds of the food scraps and one third of all paper (food-soiled paper and amounts attributable to the State Commercial Recycling mandate) out of landfills by 2015. Landfilling is estimated to be reduced by approximately 26,000 tons per year from food scraps and 27,000 tons per year from all paper. The year 2025 was selected for the goal year for 90% diversion because this is approximately when the

[5] Source: http://www.calpsc.org/about/doing.html

landfill at Scholl Canyon is scheduled to close. By diverting more materials, the life of Scholl Canyon could be extended significantly, particularly if the communities that share Scholl Canyon implement similar Zero Waste resource management initiatives.

Second, as a logical extension of Glendale's membership in the California Product Stewardship Council (CPSC), the City should adopt the Extended Producer Responsibility (EPR) resolution included as Appendix E. The CPSC is dedicated to shifting responsibility from ratepayers to producers to take responsibility for minimizing the environmental impact of products and packaging through all stages of the product's life. Although Glendale has joined CPSC, it has not adopted an EPR Resolution. The adoption of such a resolution would be a critical step in declaring that Glendale aims to start phasing out the provision of free end-of-life product management services to the makers of toxic and disposable products. A Glendale EPR resolution could:

- Establish a preference for take-back provisions in purchasing contracts,
- Specify a range of problem products to investigate for local actions,
- Call on state government to pass producer responsibility legislation.

Many communities in Los Angeles County have already adopted such resolutions. Glendale could also compile a list and publish it on its website of businesses or non-profits that will take back products and packaging from customers that are otherwise difficult to reuse, recycle or compost locally. See the longer discussion of EPR policies in the text box below.

Third, the City could also join other local communities in the area to adopt local take-back policies and programs for problematic materials, such as take-out containers, batteries, fluorescent light bulbs and universal electronic waste. The most important such step would be to **join with Los Angeles County in implementing a citywide ban on stores distributing free single-use plastic shopping bags**. A draft plastic bag ordinance, modeled after the one recently adopted by the County, is included as Appendix C. The ordinance addresses the following problems:

- Americans throw away roughly 100 billion plastic bags per year,
- Approximately 1 billion seabirds and mammals die each year ingesting plastic bags,
- It takes 1,000 years for plastic bags to break down,
- Only one percent of plastic bags are recycled,
- Plastic bags are a major source of windblown litter, particularly in oceans and rivers, and frequently block stormwater flows in grates and drains.

Fourth, the City should adopt policies to favor environmentally-friendly products and services in purchasing decisions. The City Purchasing Procedures in Chapter 3-12 of the Administrative Policy Manual were last revised in January 2007. This policy comprehensively addresses the use of recycled-content and reusable products. With a goal of Zero Waste, other related issues could be adopted to enhance the City's influence in the marketplace through its own purchasing of products and services. The following recommendations should be coordinated with Purchasing to recommend specific language for changes in the Policy Manual:

- Add "compost products" to the list of products under the existing Policy 3-12, in addition to recycled, reusable and recyclable products to stimulate the market for products made from organic materials recovered from Glendale.

- Expand the Purchasing Policy to include Environmentally Friendly Products and Services. Use the City's buying power to support other "green" products and services. Use EPA's website (http://www.epa.gov/epp/) to help identify and evaluate green specifications, policies and vendors.

- Add a process to apply the Precautionary Principle to all major City purchases. Meet with each City department to identify products and services that may either be wasteful or toxic, and explore alternatives to current practices, or how to design the waste out (e.g., using native plant species for landscaping rather than using more pesticides to protect species not well suited to this ecosystem). Build on experience of the City of San Francisco where this has been done since 2003.

- Establish a website that lists all green, recycled, reusable, recyclable and compost products and services that the City purchases, including the vendors that provide those products and services, and contact information. Promote this as part of technical assistance programs as a local reference source for these types of products and services that can be obtained locally.

Extended Producer Responsibility (EPR) Policies

The focus of EPR policies in California has been to reduce the reliance and cost to local governments in providing household hazardous waste (HHW) services. These services are essentially an unfunded mandate placed on local governments by the absence of producers taking responsibility for their products and packaging at the end of their useful life. The City currently collects HHW (including sharps) from the public, from Wednesday to Saturday from 9 a.m. to 1 p.m. at the City's Environmental Management Center. The City also allows e-waste drop-off at no charge to residents or businesses at the City's Recycling Center. The cost of these HHW programs annually for the City of Glendale is substantial. Typically only 1-10% of all HHW are collected through such programs, which means that 90-99% of all HHW are still being buried illegally in landfills, poured down the drain, or otherwise being disposed of improperly.

Take-back programs like those for automobile batteries show that there is a better, more cost-effective way to successfully capture HHW with much less government involvement. Over 95% of all automobile batteries are returned to the point of sale of new batteries, and are provided a significant economic incentive to do so (typically a $7-10/battery "core" fee deposit is refunded upon receipt of the old battery). In California, other examples of take-back programs already operating include those for beverage containers (the AB2020 program), cell phones, rechargeable batteries, and used motor oil. A voluntary take-back program has also been setup locally by IKEA for other types of batteries. However, there are not many other products taken back by producers or retailers in Glendale.

4B. Mandatory Commercial Recycling

The Scoping Plan adopted by the California Air Resources Board (ARB) to implement the California Global Warming Solutions Act of 2006 (AB 32) included a Mandatory Commercial Recycling measure designed to achieve a reduction in greenhouse gas emissions of 5 million metric tons of carbon dioxide (CO2) equivalents.

According to Statewide Waste Characterization data obtained from the California Department of Resources Recycling and Recovery (CalRecycle), in 2008 Glendale buried in landfills 188,407 tons of solid waste, and burned 140 tons at the Commerce Refuse-To-Energy Facility for a total of 188,546 tons disposed.[6] Of that, about 77,000 tons are from residential sources (41% of the total waste stream) and 109,000 tons are from commercial sources (59% of the total waste stream).[7]

Much of the materials discarded by businesses are clean enough to be recycled. The AB32 Scoping Plan recognized that the commercial sector has not been directly subject to requirements of the Integrated Waste Management Act of 1989 (AB 939) to divert waste from landfills. To help significantly reduce greenhouse gas emissions, the AB32 Scoping Plan called upon CalRecycle to develop regulations for the Air Resources Board to adopt that would require designated businesses to recycle in the future. The Scoping Plan targeted the recycling of an additional 3 million tons of materials from the commercial sector by the year 2020.

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6 Source: http://www.calrecycle.ca.gov/Profiles/Juris/JurProfile2.asp?RG=C&JURID=176&JUR=Glendale, "Waste Flows"

7 Note: the total amount of solid waste is from 2008 data. The percentage that is residential vs. commercial is based on 2000 statewide estimates of residential data and 2004 statewide estimates of commercial data. As a result, the total amounts are not exactly the same, but are close enough to demonstrate that more than half of all wastes still disposed from Glendale are from the commercial sector. Source: http://www.calrecycle.ca.gov/Profiles/Juris/JurProfile1.asp?RG=C&JURID=176&JUR=Glendale, "Overview"

CalRecycle is working on developing rules to implement this mandatory commercial recycling measure. The latest presentations on the rules identified the following direction:

- Businesses and multifamily (5 units or more) that generate 4 cubic yards of waste and/or recyclables per week will be required by the State to:

    - Subscribe to recycling service,
    - Send materials to a mixed waste processing facility, or
    - Self-haul recyclables.

- Communities will be required by the State to implement education, outreach, and monitoring of their commercial recycling program by July 2012. Communities can use existing programs and decide whether changes are needed to their ordinances, policies, or franchise agreements to comply. The State will allow communities great flexibility to phase in policies and programs. Communities will need to report on progress on this measure to CalRecycle in AB939 electronic Annual Reports.

- CalRecycle will review implementation by communities upon receipt of Annual Reports in 2013. CalRecycle will measure emission reductions statewide based on 2011 disposal levels Statewide and emissions factors being developed by ARB. CalRecycle will conduct waste characterization studies in 2014-15 and 2019-20.

Key issues that still need to be addressed before these rules are adopted are:

- Cost Study
- Transformation
- Mixed waste processing
- Rural exemptions

Key dates for the implementation of these rules are:[8]

- **Spring 2011 -** ARB hearing to consider the adoption of the commercial recycling regulation.
- **January 1, 2012 -** Effective date of the commercial recycling regulation.
- **July 1, 2012 -** Effective date for jurisdictions and businesses to implement commercial recycling programs.

The Institute for Local Government (ILG) has developed a sample ordinance communities may use to implement this requirement.[9] The ILG has also developed case studies of jurisdictions that have successfully developed and implemented mandatory recycling ordinances.[10]

It is recommended that the City should adopt a requirement that all Glendale commercial waste be subject to either the source separation of recyclables or be taken to a certified mixed waste processing facility with a high recycling rate. The City should not allow commercial wastes to go directly to landfill without processing first. This would allow the City to maintain an open competitive marketplace for refuse hauling services within the framework of the new statewide requirement of mandatory commercial and multifamily recycling. It would also strengthen the City's role as the provider of free commercial, multifamily, and residential recycling collection services. Such an ordinance would be modeled after the current requirement that construction and demolition waste from projects with a value of at least $100,000 be taken to certified mixed debris recycling facilities with a minimum diversion rate of 60 percent or be source separated.

Glendale should phase in this requirement over one year to allow for the development of sufficient local mixed waste recycling facilities with high diversion rates. Such a phased approach is not necessary for the requirement that yard

8 More information is available at http://www.calrecycle.ca.gov/Climate/Recycling/default.htm.

9 See: http://www.ca-ilg.org/samplecomrecycord

10 See: www.ca-ilg.org/commercialrecyclingwebinar

trimmings from commercial businesses and multi-family dwellings be recycled either through the City's yard trimmings collection program or private efforts, as ample infrastructure for processing this material already exists.

The following exceptions should apply to the landfill ban:

- For haulers that have a good source-separation program in Glendale, documented by addresses of accounts, then the remaining discards from the generators they service could be taken directly to the landfill, just as the City will be taking waste from residential sources that have the City's recycling containers directly to the landfill.

- The current exemption of roofing waste from the City's C&D ordinance will need to remain, since it is not being recycled by local material recovery facilities.

A draft mandatory recycling ordinance is attached as Appendix D, and further analysis and recommendations are included in Supplemental Document 2: Evaluation of Mandatory Recycling Ordinances. It is recommended Glendale fund any increase in costs for required recycling with AB 939 fees. Also, higher costs to take City-collected discards to mixed waste facilities (from non-source separation accounts) should be funded by a separate charge on those accounts. The draft ordinance should state that it will take effect July 1, 2012, or at a later date if the City determines that sufficient certified mixed waste recycling facilities are not available at that time.

4C. Recovering Energy and Compost from Organic Discards

While mandatory commercial recycling will help recover the vast majority of clean paper and other common recyclables, it will not address the need to recycle food waste, soiled paper, horse manure, and other organic materials with low recycling value in order to reach a diversion rate of 70 percent or greater. Fortunately, there is a technology, namely anaerobic digestion (AD), that can be used at Scholl Canyon Landfill to cost-effectively recover both energy, in the form of methane, and compost from such organic waste. Before providing details of the recommended AD facility, it is important to remember that the cost of such a facility can be reduced through even more cost-effective waste prevention programs that will be given greater attention in the next section on a commercial waste reduction initiative.

First priority should be given to the following waste prevention strategies:

- Maximize source reduction of food scraps through programs such as food banking, outreach to restaurants and other source reduction strategies discussed below,

- Develop and adequately fund an intensive program matching food service and processors with food banks, as well as source reduction outreach to businesses and home composting to residents,

- Consider diverting all palm fronds to MB Landscaping in Carson or Community Recycling in Sun Valley until an in-house processing option is available.

Discussion - While the City provides separate collection for residentially generated yard trimmings, food scraps are not collected nor could they be as long as yard trimmings are delivered to the Scholl Canyon Landfill (SCLF) for use as alternate daily cover (ADC). In addition to limiting the potential for food scrap composting, other compostable organics such as manure, succulents, palm fronds, banana leaves, and ivy, among others, also end up being landfilled as a result of their unsuitability for ADC.

Processes suitable for *all* compostable organics generated in Glendale were explored and local and regional dynamics were considered as well. For example, Glendale exists within one of the most stringently legislated air basins in the world and the South Coast Air Quality Management District (SCAQMD) has imposed strict emission controls on composting facilities. Given this dynamic, the prospect of utilizing a traditional outdoor, open windrow process to manage food scraps and yard trimmings is greatly limited, and consultants analyzed enclosed systems and other options instead.

Consultants explored the following three options for the City of Glendale's yard trimmings and food scraps:

- Development of a composting facility at Scholl Canyon.
- Delivery of material to a private composting facility permitted for food scraps.
- Development of a regional composting facility in partnership with the City of Burbank.

These options are discussed in more detail in Supplemental Document 1: Compostable Organic Discard Collection and Processing Evaluation.

Both closed and undeveloped sections of Scholl Canyon hold promise for development of a facility to process organics. There is also strong potential for energy generation as both a gas conveyance line and power station exist and gases from an anaerobic digestion system could likely be fed into this system.

Arguments in Favor of Pursuing Composting at Scholl Canyon Landfill

- Scholl Canyon Landfill is already regulated under the State Water Resources Control Board (SWRCB), which requires Class III solid waste facilities to obtain Waste Discharge Requirements (WDRs), issued by the Regional Water Quality Control Board - Los Angeles Region (RWQCB).
- The entire site is covered by National Pollutant Discharge Elimination System (NPDES) General Industrial Permit No. CAS 000001, issued by the SWRCB on April 17, 1997.
- Grinding for ADC is already registered under Rule 1133 and 1133.1, and the equipment is exempt under Rule 219 Exempt Equipment.
- Including employee transportation and other miscellaneous trips (vendors, contractors, etc.), about 800 vehicles per day enter SCLF. This would approximately double to 1,600 vehicles per day at the site's maximum permitted capacity of 3,400 tons per day (TPD). At landfill's current 800 TPD, traffic is considerably below its projected and permitted volume. At its maximum permitted tonnage, or if a regional composting/anaerobic digestion facility was constructed, the volume of material coming into the landfill and total number of vehicles per day would not increase traffic.
- Glendale and Los Angeles County Sanitation District's Joint Powers Agreement identifies and anticipates the potential of composting on the property.
- Development of a composting/anaerobic digestion facility at the Scholl canyon landfill will reduce the City's carbon footprint, provide a diversified revenue stream (including the potential for regional hosting fees, tipping fees and carbon credits, as well as energy generation and soil amendment sales), and allow long-term control of organics management and economics.

Full implementation of source reduction programs discussed in the commercial waste reduction initiative section of the Plan are recommended as a mandatory first stage to minimize generation of wasted food. Once all source reduction programs are developed and implemented, the required source separation of "wet" discards, such as food scraps, soiled paper and manure, is recommended for inclusion in the City's mandatory commercial recycling ordinance. As a first step, residential wet discards would be allowed to be commingled in the yard trimmings containers.

Stringent rules imposed by SCAQMD the SWRCB diminish the feasibility of food scrap composting in an outdoor open windrow or covered aerated static pile at Scholl Canyon or arguably, anywhere in the Los Angeles basin. Hence, viable systems would need to be enclosed to ensure process water, run-off or leachate and emissions are fully contained. Competition from other conversion technologies also necessitates that composting technologies be economically competitive and include an energy production component as well.

While existing or planned "chip and grind" facilities for yard trimmings may remain an option, and permit and regulatory analysis of Scholl Canyon Landfill has determined great potential for composting, attempting to permit any open windrow or outdoor system of processing at Scholl Canyon would present inevitable and myriad challenges. Given these challenges, and weighing the costs and environmental impact of various options, consultants believe an enclosed digestion technology called dry fermentation or high solids anaerobic digestion would possess the most benefits for Glendale and have the best chance of being permitted. The summary table, from Supplemental Document 1, comparing several of these options is included below.

Table 7: Overview of Technology/Handling Options and Ballpark Costs for Development of Composting and Energy Generation at Scholl Canyon Landfill

Technology/Handling Method	Capital Costs	O&M/Per Ton Cost	10 Year Combined Per Ton Costs[11]	Notes
Open windrow composting	$100,000 to $1 million	$10 to $20/ton	$10.33 - $23.33	1, 2, 4, 6
Covered aerated static pile composting	$500,000 to $2 million	$30-$50/ton	$31.67 - $56.67	1, 3, 6
In-vessel composting	$1 million to $5 million	$35-$150	$38.33 - $166.67	1, 3, 5, 6
ArrowBio mechanical biological treatment-anaerobic digestion *(Wet AD)*	$20,922,000	$19	$39.92	Based on design capacity of 300 tpd and throughput of 100,000 tpy[12]
BIOFerm high solids anaerobic digestion *(Dry AD)*	$8,230,313 w/ power station; $7,143,634 without	$3.60 - $9.60	$27 - $37	1, 6; Capital costs include the appropriately sized CHP[13]; excludes wheel loader costs and other special direct costs.
Orbit anaerobic digestion *(Wet AD)*	$12 to $14 million with gen sets, $9 to $11 million without	$13 - $22	$33- $53	Based on 125 ton per day (45,625 tons/year); includes two 1.6 MW reciprocating engine generator sets but not land and building
Delivery to Community Recycling	N/A	$45-$46 ton	$48- $49[14]	Quoted tip fee from Community was $40-$41/ton for yard trimming/food scrap mix and subject to change; estimated $5/ton to haul to Sunland added

1. Based on 30,000 tpy yard trimmings, food scraps and manure
2. Costs highly variable
3. Various methods depending on technology provider
4. May not be feasible under SCAQMD's proposed rule 1133.3
5. May not be feasible for 30,000 tpy
6. Does not include revenue offsets from finished product and/or energy sales

[11] Capital cost ÷ 10 ÷ annual throughput + O&M/per ton cost
[12] Source: Los Angeles County Conversion Technology Evaluation Report – Phase II, October 2007
[13] Combined heat and power component
[14] Approximate cost with CPI adjustments

Why Anaerobic Digestion is the Best Option for the City of Glendale

1. Anaerobic digestion (AD) is the only conversion technology that qualifies for diversion credit under AB 939 and RPS (Renewable Portfolio Standards) credits under SB 107.

2. Anaerobic digestion is the only conversion technology with a proven track record and history of efficiency, dependability and compliance with public health and environmental rules and standards.

3. AD has a lower capital and per ton cost than many other proposed conversion technologies, and is cheaper than rail-haul as well.

4. AD is the only conversion technology that can *easily* meet stringent air emission standards of the South Coast Air Quality Management District.

5. Methane produced from an AD facility could flow into the existing gas line from Scholl Canyon to the Grayson Power Plant.

6. An AD facility would produce two marketable outputs: energy and composted soil amendments.

More detailed information on the benefits of an AD system is included in Supplemental Document 1: Compostable Organic Discard Collection and Processing Evaluation.

4D. Commercial Waste Reduction Initiative

Most of Glendale's waste reduction programs have focused on the residential sector even though more than half of local waste is generated by non-residential sources. A major reason is the wide diversity of the types of waste and building arrangements found in the commercial sector. While it is more difficult to implement commercial programs, there is a great potential for implementing an enormous array of waste prevention programs that can reduce costs and liabilities for local businesses. Waste prevention programs are often the most cost-effective programs for the City since, once implemented, the waste is diverted from landfill at no cost to the City.

In order to best communicate the advantages of such programs, it is recommended that the City contract for business waste reduction services that would include: workshops tailored to specific industries, waste audits, technical assistance, educational materials, and a recognition program. These services would be offered under the guidance and with the advice of a Glendale green business alliance and would incorporate insights from the field of community-based social marketing. Such a business alliance would be most valuable when and if the City includes commercial generators in a food waste recycling program that requires the separation of wet and dry discards. The details of this initiative are provided below.

Discussion - The top priority for Zero Waste policies and programs is to reduce waste first. All Zero Waste businesses have highlighted that they save the most money by designing waste out of their production processes or operations. Glendale could help residents and businesses reduce waste through public education and outreach materials, waste audits, and recognition of model programs.

- **Education and Outreach**. As part of the implementation of this Plan, the City could:

  - Establish a business training program, with monthly or quarterly meetings and workshops focused on a specific commercial sector. The workshops will bring in experts who have already implemented Zero Waste programs. Training will also be available for a business's entire staff.

  - Include the message in all education and outreach materials "Reduce and Reuse first, then Recycle and Compost the rest."

- Encourage businesses to minimize waste in their purchasing and to ask suppliers to either design wastes out or take back their products or packaging when done.

- Encourage businesses to buy reusable, recycled and durable products. The City could promote the program with sale of aluminum or steel water bottles and durable shopping bags at City facilities.

- Encourage local courts and mandate that City departments allow all legal documents and forms to be filed on-line without the use of paper. The City could review what types of papers are produced in which locations, then evaluate how an electronic transaction could replace the paper transaction.

- Conduct a workshop on reusable shipping containers in collaboration with other Zero Waste communities in the area (e.g., Burbank, Culver City and Los Angeles).

- Further details of the educational recommendations are provided below in the sections titled "Changing the Culture through Outreach and Education", "Hierarchy of Options for Food Scraps", and "Source Reduction Strategies for the Food Service Industry."

- **Waste Audits and Technical Assistance -** The City could provide free waste audits and technical assistance to businesses that would focus on eliminating waste and setting up reuse systems (e.g., reusable shipping containers). The City could also conduct waste audits of institutions to help them identify opportunities to reduce waste (e.g., government offices, schools, colleges, and hospitals). The City could also explore with other City departments and utilities the possibility of doing integrated environmental audits like the joint waste, water and energy audits performed by StopWaste.org in Alameda County.

- **Recognition of model programs** - The City could organize an annual recognition ceremony of businesses that have exemplary waste reduction programs and invite elected officials and the media to this ceremony to salute their leadership. The City could give special recognition to Zero Waste Businesses that have diverted over 90% of their waste from landfills and incinerators. Case studies could be posted on the City's website, in the City's newsletter and could be provided as news stories for local electronic and print media to highlight as part of their efforts to cover sustainable and green businesses in the area.

- **Landscaping for Zero** - Support Zero Waste landscaping and yard care, grasscycling, the use of native plants and xeriscaping as part of educational programs. Provide brochures at Community Planning Department counter on new laws concerning water conserving Low Impact Development (effective 1/1/10) and Green Building Code (effective 1/1/11) and highlight ways to comply with those new laws that will also minimize waste.

Changing the Culture through Outreach and Education

In developing a Zero Waste educational program, there are key components that will guarantee it is sustainable and effective. These key components include: total participation, "walking the talk," multi-faceted media and community-based social marketing. The following is an outline of the Zero Waste educational program.

Zero Waste companies utilize the "total participation" model which emphasizes the training of all employees from leadership to administration and operations, empowerment of employees to create changes everyday, tracking and re-investing saving back into the program, and engagement of vendors and clients in the Zero Waste program.

By training all city staff, Glendale can be the model for its citizens and businesses. By "walking the talk", the staff will also be able to effectively communicate the importance of the Zero Waste Action Plan because they have experienced the ease of implementation, the savings and the benefits to their community.

Multi-faceted media is imperative in our dynamic and changing marketing environment. In order to instill the three "R's" "Reduce, Reuse and Recycle," an interactive media campaign should be developed utilizing print, social media, websites, listserves, TV, and radio.

With regard to community-based social marketing, "Numerous studies document that education alone does not alter behavior. Conventional marketing, which often relies heavily on media advertising, can be effective in creating public awareness and understanding of issues, but is limited in its ability to foster behavior change.

Community-based social marketing is based upon research in the social sciences that demonstrates that behavior change is most effectively achieved through initiatives delivered at the community level, which focus on removing barriers to an activity while simultaneously enhancing the activity's benefits. To be effective, programs must be carried out at the community level and involve direct contact with people.

Community-based social marketing involves four steps:

1. Identifying the barriers and benefits to an activity
2. Developing a strategy that utilizes "tools" that have been shown to be effective in changing behavior
3. Piloting the strategy
4. Evaluating the strategy once it has been implemented across a community."[15]

Cullbridge Communications and Marketing, in collaboration with Dr. Doug McKenzie-Mohr, founder of community-based social marketing, developed a tool kit for Natural Resources Canada (along with other partners) to implemented sustainable behavior changes.[16]

The "Tools of Change" are described below:
"A job is so much easier with the right tools at hand! These tools offer powerful approaches that can make your programs more successful. Some of these tools provide fundamental ways of motivating people to take the action you wish them to take: Financial Incentives and Disincentives, Norm Appeals, Vivid, Personalized Communication, Feedback, Obtaining a Commitment and Building Motivation Over Time are tools that can help you increase motivation. They can also help overcome barriers and disincentives, such as inertia, information clutter, and feelings of isolation, which would otherwise discourage people from participating in your program.[17]

The "Tools of Change," along with the other proven community-based social marketing programs should be developed and customized for the City of Glendale to complete a comprehensive Zero Waste Educational Training Program.

Training and Education for City Officials

Planners, lawmakers enforcement personnel and all other hired or elected officials involved in promotion, rulemaking, and enforcement of resource management policies should be required to attend a training session that covers the principles and benefits of composting, problems associated with landfilling organics, facility siting and design, feedstocks, troubleshooting, and end-product development and use.

Training Program for City Staff and Vendors

A program should be designed and implemented to train all city staff. The program will provide tools customized for individual departments. City vendors will be also involved in the training to maximize the upstream opportunities provided by reduced packaging, trips, green purchasing and cohesive practices.

T*raining Program for Commercial Businesses (sector specific: property management, entertainment)*

A business training program will be designed to have monthly or quarterly meetings and workshops focusing on a specific sector. These workshops will bring in experts in the industry and businesses who have already implemented Zero Waste programs to meet the mandatory commercial recycling ordinance. A business association may be set up similar to the

[15] http://www.bearsmart.com/becoming-bear-smart/community/education/community-based-social-marketing
[16] See http://www.cullbridge.com/Projects/Tools_of_Change.htm
[17] See http://www.toolsofchange.com/en/tools-of-change/building-motivation-over-time/

Burbank Green Alliance. This could be facilitated in partnership with the chamber or set up with other businesses associations. Tools will be designed for each business sector via a website, and adequate funding will facilitate on-site waste audits and training for interested businesses. By training a business's entire staff, long-term and sustainable behaviors, actions and policies will be achieved.

Public Awareness

In general, recycling education can be enhanced through an aggressive media campaign utilizing ongoing newspaper ads and radio and local television spots. Display boards at community venues should be designed and constructed to demonstrate the need and ease of recycling and notify residents of rule changes and upcoming events. Business recycling can be promoted through employee training sessions and media campaigns as well.

Signage

First and foremost is public exposure. All government buildings and facilities (schools, athletic fields, offices, hospitals, airports, bus stations and libraries) must have recycling bins and clear directions for people using these facilities. For convenience, all drink dispenser machines should have recycling bins adjacent to them. A private hauler could provide this service. These programs would need to be factored into the cost of residential and/or commercial recycling programs. For commercial businesses, the City could just require that these services be provided. Then the free market would determine what price they would need to pay haulers to provide that service. For residential collections, the PAYT rates would need to be structured to include the costs of these programs.

A recycling education and public awareness consultant could be hired to establish working relationships with the school system, chamber of commerce and government agencies. Also, key executives should be identified to work with for making recycling an everyday, multi-phase presence in the lives of Glendale residents and businesses.

Training Guides in Print and Web Form

A "how-to" guide should be developed for and distributed to businesses to learn how to reduce wasting YouTube videos can be produced to showcase restaurants in the area that have implemented food reuse programs (i.e., City of Santa Barbara). The success of the non-recyclable food service container (Styrofoam) ban in Santa Barbara was in large part due to a comprehensive and easy to use website. The website has been expanded to include distributors, Zero Waste events, success stories, FAQs and useful links. The availability of resources is key to a successful program.[18]
To learn more about diversion potential and how cost effective using food banks can be, please see the Case Study: Metropolitan Portland, Oregon "Fork It Over!" Program/Oregon Food Bank in the organics document.

Launch Campaigns and Intensified In-school Programs

Leveraging the successful school programs designed by the Community Development Department, the City of Glendale can take advantage of the educational system by training a new generation of Zero Waste Advocates. Following the very successful Zero Waste and Recycling programs established by City of Manhattan Beach in collaboration with their school district and haulers, a comprehensive program can be developed for both students and administration (business Zero Waste training). Students can benefit from hands-on real life behavior changes and the school administration will benefit from the savings of reducing, reusing and recycling[19].

The Capistrano School District, in collaboration with the City of San Juan Capistrano, also developed the RED "Recycle Every Day" program that saved the school district over $20,000 in waste fees.[20]

In hard economic times, schools can achieve significant savings by participating with cities, residents and businesses through reduce, reuse, recycling, food scrap composting and green purchasing policies.

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[18] See http://www.santabarbaraca.gov/recycling-trash/businesses_food.htm#debut and http://www.smgov.net/Departments/OSE/Business/Non-Recyclable_Food_Service_Container_Ban.aspx

[19] See http://www.ci.manhattan-beach.ca.us/Index.aspx?page=1518

[20] http://articles.latimes.com/1991-09-10/local/me-2489_1_schools-recycling-program

Training Program for Restaurants/Hospitality and Larger Generators of Organics

Restaurants and the hospitality industry have made significant changes in going green. By implementing a Zero Waste Plan and offering food scrap composting, the City of Glendale can support their hospitality industry with a comprehensive training program which will save them money and assist in meeting the demands of a changing clientele demanding healthy, sustainable and green practices.

Many programs, resources and organizations exist that support Zero Waste for restaurants and hospitality such as; The Green Restaurant Association (www.dinegreen.com), SustainLA (www.sustainla.com), Santa Monica Styrofoam Ban website (www.smgov.net/Departments/OSE/Business/Non-Recyclable_Food_Service_Contaoiner_Ban) , the Green Hotel Association (www.greenhotels.com), Santa Barbara's Restaurant YouTube videos and Atlanta's Green Foodservice Alliance (www.greenfoodservicealliance.org).

In collaboration with the City of Burbank, consultants developed a restaurant Zero Waste Training Program and Workbook. This program, coordinated with those mentioned above, will be easily customized for City of Glendale and their restaurants.

The Los Angeles Regional Food Bank is a clearinghouse for food and non-food items in Los Angeles County www.lafoodbank.org. Its website explains: "We are at the heart of a charitable food distribution network that includes over 900 charitable agency sites in Los Angeles County. Extra Helpings Program: This program helps Food bank agencies obtain prepared, perishable food and other product primarily for meal programs. The Food bank's staff pairs restaurants, hotels, caterers and other donors who have extra food or product with nearby agencies who collect the food and use it to feed their clients. For information on how to donate food through this program, please contact the food bank's product donations department[21]."

Food Banks in Glendale:

Glendale Central Spanish S.D.A.
901 E. Broadway, Glendale, CA 91205
(818) 243-3006
http://glendalespanish22.adventistchurchconnect.org/

International Families Association
1741 Gardena Avenue, Suite E, Glendale, CA 91204
(818) 500-0636

Loaves & Fishes – Glendale
4322 San Fernando Road, Glendale, CA 91204
(818) 409-3080

Salvation Army – Glendale
320 W. Windsor Road, Glendale, CA 91204
(818) 246-5586

Hierarchy of Options for Food Scraps

Although all options may not currently be available, nor available in the future, analysis of methods and technologies and subsequent recommendations are based on the following hierarchy:

[21] Contact jkindle@lafoodbank.org

Table 8: Hierarchy of Options for Food Scraps

- Source Reduction
- Donation to Food Banks
- Food to Animal Feed/Direct Land Application
- Subsidized Distribution of Compost Units and Intensive Training for Residents
- Shared, Small-scale, Decentralized Composting Systems for Residences and Businesses
- Use of Discarded Organics for Production of Liquid Fertilizers and other Beneficial, Value-added Products
- Combination/Comprehensive Programs
- Co-collection of Food Residuals with Yard Trimmings/Centralized Composting using In-vessel or Open Windrow Technologies
- Single Stream Collection/Drop-off of Food Residuals for Decentralized or Centralized Composting

Source Reduction Strategies for the Food Service Industry

Purchasing

- Buy lettuce precut during those times of the year when the pre-cut cost is equal to (or less than) the cost of the bulk product
- Reduce packaging by buying meats in bulk or uncut form and cut to size
- Also to reduce packaging, buy shelled eggs in bulk if egg usage exceeds three or more cases per week
- Check produce deliveries carefully for rotten or damaged product, and return any substandard goods
- Suppliers can be asked to take back shipping boxes for reuse or recycling and told to keep you informed about new and existing products that are packaged in ways which can reduce waste
- Spending a little more to purchase the most durable equipment and janitorial supplies will reduce waste and save money
- Purchase paper products made from recycled materials
- Compostable paper from recycled materials is a better option than plastic for take-out bags, plates, containers, and cups

Service Areas and Practices

- Serve beverages from a gun or dispenser, buy bar mixes in concentrate form, and buy milk in 5-gallon dispenser boxes

- Use health department-approved, refillable condiment dispensers instead of individual packets. Buy shelf-stable food supplies in bulk when sales volume and storage space allows
- Reusable coasters create less waste than paper napkins or coasters when serving beverages
- Use reusable table linen and dinnerware
- Washable ceramic dishes and cups, glass and silverware are better choices than plastic
- Condiments should be distributed from behind the counter rather than offered as self-service
- Straws served from health department-approved dispensers, rather than pre-wrapped, reduce waste
- Use of unnecessary extra packaging for take-out foods should be minimized (minimal packaging, or preferably, none at all, should be used for eat-in foods)
- Dining room trash should be checked for discarded trays and flatware before being throwing out
- If beverages in cans or bottles are served, a recycling bin should be placed in the dining area

Storage and Refrigeration

- Rotate perishable stock at every delivery to minimize waste due to spoilage
- Clean coolers and freezers regularly to ensure that food has not fallen behind the shelving and spoiled
- Arrange refrigerated and dry storage areas to facilitate easy product access and rotation
- Store raw vegetables and other perishables in reusable airtight containers to prevent unnecessary dehydration and spoilage
- Freezer products can be wrapped tightly, labeled, and dated to ensure they are used in a timely fashion and don't develop freezer burn

Leftover or Discarded Food

- Some unserved foods are suitable for donation to a local food bank
- Vegetable and meat trimmings can be used for soup stock
- A rendering service should be used for waste grease, fat, or used cooking oil
- Food that can't be rendered, donated to a food bank or isn't suitable for animal feed should be composted

Kitchen and Preparation

- Rehydrate vegetables (e.g., celery, lettuce, carrots, broccoli, etc.) that have wilted by trimming off the very bottom part of the stalk and immersing in warm water (100°F.) for 15 to 20 minutes
- Use hourly or daily production charts to minimize over prepping and unnecessary waste
- Whenever possible, prepare foods to order
- Adjust the size of meal portions if they are consistently being returned unfinished
- Rubber mats placed around bus and dishwashing stations can reduce china and glass breakage

Cleaning and Facility Maintenance

- Store and handle unwrapped paper supplies to prevent the products from inadvertently falling on the floor
- Cloth towels should be used for cleaning, rather than the paper
- Plastic trash can liners made of recycled HDPE, rather than those made of LDPE or LLDPE, contain less raw materials, work equally well for most uses, and generally cost less
- Cleaning supplies are best purchased in concentrated form
- Multipurpose cleaners suitable for all types of surfaces create less waste than those that are job specific. Non-hazardous, non-toxic cleaners are best
- Reusable hats for kitchen employees will eliminate waste from disposable paper ones
- Empty plastic pails or buckets can be donated to schools, nurseries, churches, customers, or employees
- Old uniforms can be donated to thrift shops
-

Employees and Customers

- Incentive programs can be created to reward staff for reducing breakage of china and glass
- Employees can use permanent-ware mugs or cups for their drinks
- Employees should be asked for input and assistance on what can be done to reduce waste, and rewarded for good ideas
- Educate customers and advertise waste reduction programs by posting signs highlighting efforts

- Customers can be offered a discount if they bring their own mugs, containers, or bags

4E. Other Waste Reduction Recommendations

Green Building Requirements

Green building requirements can be used to promote waste prevention, reuse, recycling, composting and Zero Waste. The following recommendations should be coordinated with existing City green building efforts:

- Update local building codes to implement new Green Building Code that takes effect January 1, 2011. Conduct training locally for contractors, architects, engineers and developers on what will be required by the State.

- Work with historic preservation advocates to restore and reuse buildings, rather than demolish them. Consider adoption of "adaptive reuse" as a priority in City building standards for residential and commercial construction and discourage the demolition of any building that is still functional. Assign a higher value for reuse of products in Green Buildings certification programs, based on the value of the material purchased, not the amount it weighs

- Provide incentives for green buildings by authorizing them to "go to the head of the line" in City permitting procedures.

- City provides a preference in leased buildings to lease space from green buildings.

- City adopts Green Building Policy to guide its use of Green Buildings and the construction of all new buildings in Glendale. Such Policy should provide incentives for use of products that are more durable, have a longer lifespan, require no additional finishing on-site, have less frequent maintenance and repair cycles, and give credits for products made from recycled content.

- Include a reuse goal to value the recovered products by the price for which they are sold, or some multiple of their weight, to reflect the higher value of reuse.

- Work with existing reuse, recycling and composting service providers to upgrade their building and vehicle appearance and operations, in order to be good neighbors. Work with environmental justice, neighborhood, workforce development, and business development organizations to identify where such efforts should be targeted.

Reuse Programs

Following are recommended reuse programs:

a. ***City Reuse Operations*** – Establish a goal to reuse and recycle at least 75% of all products collected in the bulky item pickup. Consider using special days to collect different types of reusable products (e.g., furniture, elecronics, sports on different days). Determine the feasibility of having a nonprofit go ahead of the City bulky item collection vehicles to collect all working items that they can resell, and provide them route maps for schedule of collections, in trade for them providing reports to the City on the amount and type of products recovered, to include in the calculation to meet this goal. Organize college move-outs and move-ins to facilitate the reuse of furniture, books, clothing, equipment and other "stuff." Consider both purchasing from and supplying reuse stores with used furniture and equipment.

b. ***Promotions*** - Promote existing thrift stores, used building material stores, yard sales and flea markets and stores capturing surplus office supplies, clothing, furniture, books and building materials. Promote local antique and thrift stores, repair shops (e.g. appliances, autos, furniture) and local electronic equipment, furniture and appliance resellers. Develop a guide to these locations and post on the City's website, and arrange for it to be published in the local newspaper as a special insert for Earth Day or America Recycles Day.

Promote electronic product and material matching services (e.g., FreeCycle, Craig's List, eBay and other product and material exchanges). Support funding to expand the service of LA Shares to Glendale (and throughout Los Angeles County). LA Shares electronically matches surplus furniture, supplies and equipment from businesses in area to needs of schools and non-profit organizations. LA Shares works with schools and nonprofits throughout LA City to identify what needs they have for usable products discarded as excess inventory by companies in the area. Nonprofits and schools give LA Shares their specific needs.

When items become available from businesses discarding products, the nonprofits and schools can "bid" on getting those items. The computer selects winning nonprofits and schools by a random number calculator. LA Shares then advises the nonprofits and schools who is donating the items, and the business and nonprofit or school make arrangements between the two of them to get the products being donated. Promote the donation of edible food from restaurants and grocery stores to food-banks and social service organizations. Print decals for businesses that donate excess food to place in their windows to recognize their leadership.

c. ***Expanding Reuse Retail Network*** - The City could work with major retailers of clothing in the area to establish "Bargain Basement" sections of their stores where premium used clothes could be sold that would be supplied by existing thrift stores, with the profits from sales split between them. This would provide an expanded way for major retailers to highlight their Green attributes and sensitivity to the current economy, and forge a new partnership that truly provides greater social equity through support of local job-creating thrift businesses and nonprofits.

The City could pursue a similar concept with other reusable products that are discarded. Used lumber, building materials and compost products could be marketed through major home repair, hardware stores and nurseries in the region. Used furniture could be marketed through furniture stores in the region. Used appliances could be marketed through appliance stores in the region. A whole network of repair and refurbishing businesses or nonprofits could be established to upgrade materials and products that are collected through large-scale reuse programs to attain a higher price in such retail activities. This is the model that Urban Ore uses in Berkeley, CA. Urban Ore specializes in large volume throughput of products through their system. Urban Ore estimates that they supply about 100-200 other local businesses and nonprofits (including many antique stores and specialty stores such as furniture manufacturers from used wood) that sell these products for added value. The other businesses and nonprofits add value through the way they polish, repair, manufacture, display and/or advertise items. Urban Ore could be requested to do training for the display and marketing of used building materials and other reuse operations.

Help form a Reuse Collaborative with businesses and nonprofits throughout the region to help in marketing products collected through various reuse networks, and to help develop the above distribution system. Help Reuse Collaborative to develop warehouse that could help absorb the ebb and flow of products that are collected prior to distribution. The extent of the warehousing needs depends on how many players get involved in the reuse and recycling of products. Space could be leased out on a spot basis as needed to help in the ups and downs of market conditions. This could be done at the Resource Recovery Park proposed below, or another location. Work with the National Reuse Alliance to form a local chapter as a first step.

Regulated and Hazardous Materials Handling

Regulated materials include chemicals and other hazardous waste, tires and non-recyclable materials that need to be redesigned because they are not recyclable or compostable (baby diapers and treated wood, for example). Tires can be basic ingredients for road base and surfaces and should be sorted for that use. Chemicals are not allowed in the landfill and should be handled at hazardous waste facilities, such as Glendale's Environmental Management Center. Non-recyclable materials like diapers and treated wood that is not reusable as lumber should be landfilled and a dialog should be initiated with industry about product redesign. Take-back ordinances should be passed for items that cannot be recycled or composted (initially, sharps and pharmaceuticals should go back to pharmacists, and fluorescent lights and mercury batteries back to retailers)

Regulated materials offer an opportunity to reduce costs and environmental impacts of household hazardous materials found in batteries, light bulbs, pool and photo chemicals, household cleaners, paints, medicines, and needles (the majority of these materials cannot be recycled and must be managed carefully to prevent threats to environmental and public

health). Whenever possible, reusable hazardous items, such as paint, should be made available for reuse or sold. Fees should be assessed at the retail level for discarded items requiring special handling for proper disposal.

The regulated materials stream should be handled no differently than the recycling and reuse streams. The key is separate bins for specific commodities. Rocks and clean lumber are easy to separate and store, while chemicals must be handled by hazmat-trained workers, and if possible, be made available for reuse. Until take-back laws are in place, universal discards must be handled differently than treated wood and diapers, which can be landfilled. Additionally:

Description and Feasibility of a Resource Recovery Park

A Resource Recovery Park (RR Park) is a location where reuse, recycling and composting businesses co-locate to gain added efficiencies in operating, marketing and serving the public.[22] RR Parks are naturally evolving at many landfills, transfer stations and material recovery facilities (MRFs) in Californa. Rather than relying on separation of these materials just evolving, the concept of Resource Recovery Parks is to *plan* for that to happen, and design in price incentives to encourage users to stratify their loads to drop reusables and recyclables off first, then compostables and C&D (which may require some tip fee to cover their costs), and then dump any residual amount of trash that they couldn't figure out how to sort out last (with the highest costs for dumping that). RR Parks are designed to accept all 12 market categories of reusables, recyclables and compostables from the public. At least one RR Park should be established in the City of Glendale to conveniently take from the public reusables, recyclables, compostables, concrete and demolition materials, and recyclable household hazardous wastes (e.g., batteries, oil and paint).

The City could support the development of one or more RR Parks in the region by: supporting requests for grants and loans for activities at proposed sites as promoting the public purposes of pursuing Zero Waste in the region; providing low-cost loans or grants for site improvements if needed to supplement or match grant programs; defer property taxes in the first 10 years as would be done in urban renewal areas; adopt the location into official plans for the region, including Solid Waste, Sustainability and General Plans; and generally to endorse, provide technical assistance and promote such RR Parks.

A RR Park could co-locate collection and processing for organics, reusables and recyclables not currently processed in the region. The RR Park should aggregate, segregate and distribute reusable products at wholesale prices to supply reuse stores throughout the region. The RR Park could also include retail sales of used building materials, used furniture and appliances, and compost products and a free swap program for appropriate household hazardous wastes (e.g. paint and garden supplies) and reusable products. The RR Park could also tie in with local schools and nonprofits to donate products needed.

The feasibility of RR Parks will be determined by the combination of revenues received from sale of recyclables and the avoidance of waste disposal costs. Table 5 above highlights the value of the recovered materials. The avoided disposal costs are currently $48.99 per ton, and are expected to rise over time. As long as materials can be collected and processed for less than the revenues from sale of materials plus the avoided disposal costs, those operations will be feasible.

An ideal location for a RR Park in Glendale would be at the Scholl Canyon Landfill. The City could work with the Los Angeles County Sanitation District to develop more reuse, recycling and composting facilities there, and to incorporate price incentives in their tipping fees to encourage users of the facility to keep their materials clean and separated so they can be recovered for their highest and best use. If additional funds are needed to make the RR Park concept financially viable at Scholl Canyon, the City could work with the LACSD to establish a 2-tier tipping fee structure, like adopted in San Luis Obispo (SLO). SLO adopted an Entry Fee and a $20/ton Facility Use Fee. The Entry Fee is paid to enter the facility, where there is a full range of drop-off stations for the 12 market categories of materials. Users that are not able to drop off all their materials in this first area, must pay the Facility Use Fee for them to dispose of their materials at the working face of the landfill.

In a recent feasibility study for San Benito County[23] where Gary Liss & Associates (GLA) explored the potential for a RR Park at the County Landfill, GLA found that a Resource Recovery (RR) Park would be feasible. The RR Park would enable landfill users over time to avoid up to $2.9 million per year in costs for disposal. The landfill operator would save

[22] See Resource Recovery Park case study written by Gary Liss & Associates at: http://www.calrecycle.ca.gov/Publications/LocalAsst/31001011.doc

[23] See Feasibility Study For Resource Recovery Park On or Adjacent to John Smith Road Landfill in San Benito County, December 2008, page 1.

space in the landfill that could be sold to others at current prices or higher, or could be used to extend the life of the landfill. RR Park users could be charged up to $50/ton for the proposed processing services and still save money compared to the $57/ton tipping fee for disposal. That was found to be sufficient to amortize the investment in the equipment and labor required to provide those services. Some of the new services could also be offered for free (e.g., reusables drop-off, based on the revenue from sale of materials collected).

The San Benito RR Park proposed including an area for:

- Reuse & Repair
- Recyclables
- Organics (e.g., discarded green and wood materials, untreated wood and sheetrock)
- C&D (e.g., rock, soils, concrete, asphalt, brick, land clearing debris)
- Household Hazardous Wastes (e.g., oil, paint, pesticides, cleaners, and other chemicals)

More than $4 million of new revenues per year would eventually be generated from sales of reused and recycled products that could circulate in the community from the businesses operating in and with the RR Park in San Benito County.

It is likely that a similar analysis would result in a similar conclusion for Glendale.

5. Implementation

5A. Fiscal Impact

When the City of Glendale provides new directions recommended in this plan, the new rules for source separation, producer responsibility and organics will encourage entrepreneurs to fill the gaps. With the local government endorsing, enforcing and reinforcing the new course, businesses will be able to invest in providing the new services that will be needed to waste less and recycle more. There are enough current fees and charges to fund the change in course without new taxes or fees. The AB 939 fee mechanism will cover the needed costs for social marketing, which will be the biggest new expense. Consultants believe the local retailers will assist with the takeback rules and the local haulers will provide additional commercial recycling services that will be needed. Hence, these suggested changes will have a positive impact on the local economy without additional City fees.

5B. Five-year Implementation Timeline

Policy (First Year Initiatives to take to Council)

1. This Zero Waste Action Plan calls for Glendale to adopt a Zero Waste Resolution (see Appendix A) to increase its diversion rate from landfills and incinerators from 53% in 2006 to 70% by 2015 and 90% by 2025 (of current disposal tonnage of the 162,000 tons per year).

2. The Mandatory Recycling Ordinance (MRO) (see Appendix C) should require all commercial discards to be subject to either source separation of recyclables or be taken to certified mixed waste processing facilities with high recycling rates

3. Enact a Plastic Bag Ban (see Appendix B).

4. Adoption of an EPR resolution (see Appendix D) is a critical next step in protecting public health and reducing resource management costs and liabilities by phasing out toxic and disposable products.

5. A policy to require all landscapers working in the City to use the designated composting site once developed and operational. Precedence to development of programs for food scrap diversion should be given to those that are highest on this hierarchy: prevent food waste, feed people, convert material to animal feed and/or rendering, and compost.

Adopt the above policies in the first year and contract or use in-house staff to implement them over a five-year period.

The following policies and programs should be implemented over the next five years:

6. Implement a City contract for business and institution waste reduction services that would include: workshops tailored to specific industries, waste audits, technical assistance, educational materials, and a recognition program. Medium and large businesses and institutions could be provided expert support and funding to prevent waste, reduce operating costs and use all resources more efficiently. These services would be offered under the guidance and with the advice of a Glendale green business alliance and would incorporate insights from the field of community-based social marketing. Such a business alliance would be most valuable when and if the City includes commercial generators in a food waste recycling program that requires the separation of wet and dry discards for generators of significant amounts of food waste.

7. Reorganize bulky collection to reuse and attempt to recycle at least 75% of all products collected in the large item pickup.

8. Develop policies to help planning department historic preservation advocates restore and reuse buildings, rather than demolish them.

9. Provide collection for the reusables, recyclables and organic waste for all generators (residential, multifamily and commercial) on a free basis to ensure that there is a source separation recycling option that is less costly than wasting. This will allow generators to save money by recycling more and wasting less.

10. Begin the process of transforming Scholl Canyon from a facility that landfills organics directly or through use of ADC to processing this material through composting or anaerobic digestion.

11. Permit and build a dry fermentation (or high solids) anaerobic digestion facility at the Scholl Canyon Landfill.

12. Support the development of one or more resource recovery parks in the region.

5C. Budget (Summary of Costs and Revenue)

Following is a conservative budget over five years to implement this Zero Waste Action Plan.

Following costs are on an annual basis unless noted:

1. Implement a City contract for business and institution waste reduction services that would include: workshops tailored to specific industries, waste audits, technical assistance, educational materials, and a recognition program. Medium and large businesses and institutions could be provided expert support and funding to prevent waste, reduce operating costs and use all resources more efficiently. These services would be offered under the guidance and with the advice of a Glendale green business alliance and would incorporate insights from the field of community-based social marketing. Such a business alliance would be most valuable when and if the City includes commercial generators in a food waste recycling program that requires the separation of wet and dry discards for generators of significant amounts of food waste.

Consultant - $150,000

2 . Continue to provide for the collection of recyclables from all generators (residential, multifamily and commercial) on a free basis to ensure that there is a source separation recycling option that is less costly than wasting. This will allow generators to save money by recycling more and wasting less. Phase in the collection of all organic waste (including food) by beginning with the residential sector where the yard trimmings containers can be used as organic waste containers.

Capital and Labor Costs - $200,000 per year will pay for a good portion of the potential equipment and labor costs for servicing additional recycling accounts. Further increases in AB 939 fees may be needed to fund these costs, particularly when selected commercial generators (with more food waste) are included in the organics collection program.

3. Begin the process of transforming Scholl Canyon from a facility that landfills organics directly or through use of ADC to processing this material through anaerobic digestion or composting.

Consultant – Already funded as waste conversion facility study.

4. Attempt to reorganize bulky collection to reuse and recycle with the goal of at least 75% of all products collected in the large item pickup.

Staff to work with non-profit organizations that sell resuables

5. Support the development of one or more resource recovery parks in the region.

Consultant – Work with regional partners.

5. Develop policies to help planning department historic preservation advocates restore and reuse buildings, rather than demolish them.

Staff

Total Costs: $350,000 annually.

Total Revenues: The increase in the AB939 fee from 15% to 20% (effective January 1, 2011) will generate about $350,000 in the first year, then decrease over time as wasting decreases. This will provide the program (not the capital equipment) budget required to implement the above recommendations.

APPENDICES

Appendix A: Sample Zero Waste Resolution (for formal adoption)

ZERO WASTE POLICY FOR THE CITY OF GLENDALE, CALIFORNIA

WHEREAS, a resource management-based economy will create and sustain more productive and meaningful jobs; and,

WHEREAS, through the application of innovative policies, programs and facilities, virtually all resources can be recovered; and

WHEREAS, with the appropriate economic incentives, manufacturers will produce and sell products that are durable and repairable - that can be safely recycled back into the marketplace or nature - and will package items in materials that are recyclable or can be returned to nature; and

WHEREAS, local governments in California are empowered to establish policies and programs to eliminate waste, to create the economic and regulatory environment in which to achieve Zero Waste, and to lead by example; and

WHEREAS, the California Integrated Waste Management Act of 1989 (AB 939) required that all California jurisdictions achieve a landfill diversion rate of 50% by the year 2000, and reduce, reuse, recycle, and compost all discarded materials to the maximum extent feasible before any landfilling or other destructive disposal method is used; and

WHEREAS, in 2001 the California Integrated Waste Management Board set a goal of Zero Waste in its strategic plan for the state; and

WHEREAS, local governments worldwide have adopted a goal of achieving Zero Waste, including: the counties of Santa Cruz, San Luis Obispo, Marin and Del Norte in California; the cities of Los Angeles, Burbank, Culver City, Oceanside, El Cajon, San Francisco, Sacramento, Oakland, San Jose, Palo Alto, Sunnyvale, Mountain View, Fairfax and Berkeley in California; Seattle, Washington; Chicago, Illinois; Boulder City, Boulder County, and Telluride, Colorado; Austin, Texas; Toronto, Canada, and 66% of New Zealand's local government councils; and

WHEREAS, some businesses in the United States are leading the way to Zero Waste including: Vons/Safeway, Toyota, Honda, Ricoh Electronics; and other businesses and institutions have adopted Zero Waste goals, including Wal-Mart, Disney Studios, and the University of California system; and all Zero Waste businesses save money, increase efficiencies, reduce their liabilities, and decrease their greenhouse gas emissions; and

WHEREAS, Zero Waste principles promote the highest and best use of materials to eliminate waste and pollution, emphasizing a closed-loop system of production and consumption, moving in logical increments toward the goal of Zero Waste through the core principles of:

• Pursuing 'upstream' re-design strategies to reduce the volume and toxicity of discarded products and materials, and promote low-impact or reduced consumption lifestyles;

• Improving 'downstream' reuse, recycling and composting of end-of-life products and materials to ensure their highest and best use;

• Fostering and supporting use of discarded products and materials to reinvest in the local economy and create good green jobs; and

WHEREAS, most Zero Waste communities in California have selected an interim target of between 70-75% waste diversion within about 5 years, and 90% waste diversion by 2020-2025; and Glendale posted a diversion rate of 53% in 2006;

NOW THEREFORE BE IT RESOLVED, that the Mayor and City Council hereby adopt a Zero Waste Goal to achieve 70% waste diversion by 2015 of the current disposal tonnage of 162,000 tons per year, and 90% waste diversion by 2025; and,

BE IT FURTHER RESOLVED, Glendale will partner with other Zero Waste and sustainability advocates to actively pursue and advocate strategies and incentives to advance Zero Waste principles for resource management, system re-design, highest and best use of discarded products and materials, and a closed-loop sustainable society.

Appendix B: Sample Plastic Bag Resolution

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF GLENDALE, CALIFORNIA REGULATING RETAIL ESTABLISHMENTS PROVISION OF SINGLE-USE CARRY-OUT BAGS

THE GLENDALE CITY COUNCIL ORDAINS AS FOLLOWS:

SECTION 1. FINDINGS.

WHEREAS, the use of all single-use shopping bags (plastic, paper, biodegradable) has severe environmental impacts, including greenhouse gas (GHG) emissions, litter, harm to wildlife, ground-level ozone formation, atmospheric acidification, water consumption and solid waste generation; and

WHEREAS, there are approximately _____ retail establishments in the City of Glendale as defined herein, most of which provide single-use, disposable carry-out bags to their customers; and

WHEREAS, many of these single-use carry-out bags are made from plastic or other material that does not readily decompose; and

WHEREAS, approximately Nineteen Billion (19,000,000,000) single-use plastic bags are used annually in California but less than 5% are recycled; and

WHEREAS, numerous studies have documented the prevalence of single-use plastic carry-out bags littering the environment, blocking storm drains and fouling beaches; and

WHEREAS, the City of Glendale taxpayers must bear the brunt of the clean-up costs of this litter; and

WHEREAS, plastic bags are a significant source of marine debris and are hazardous to marine animals and birds which often confuse single-use plastic carry-out bags for a source of food resulting in injury and death to birds and marine animals; and

WHEREAS, of all single-use bags, single-use plastic bags have the greatest impacts on litter and marine life; and

WHEREAS, the use of single-use paper bags result in greater (GHG) emissions, atmospheric acidification, water consumption, and ozone production than single-use plastic bags; and

WHEREAS, from an overall environmental and economic perspective, the best alternative to single-use plastic and paper carry-out bags is a shift to reusable bags; and

WHEREAS, there are several alternatives to single-use carry-out bags readily available; and

WHEREAS, an important goal of the City of Glendale is to procure and use sustainable products and services; and

WHEREAS, it is the desire of City of Glendale to conserve resources, reduce the amount of GHG emissions, waste, litter and marine pollution and to protect the public health and welfare as well as to protect wildlife, all of which activities increase the quality of life for the [name of jurisdiction] residents and visitors; and

WHEREAS, studies document that banning plastic bags and placing fees on paper bags will dramatically reduce the use of both types of bags.

SECTION 2. Chapter 1.1 is hereby added to the City of Glendale Code to read as follows:

CHAPTER 1.1 DISPOSABLE BAG REDUCTION ORDINANCE

An Ordinance for the Chapter 1.1 DISPOSABLE BAG REDUCTION ORDINANCE for the City of Glendale relating to regulating the use of plastic carryout bags and recyclable paper carryout bags and promoting the use of reusable bags within the City limits.

The City Council of Glendale ordains as follows:

SECTION 2. Chapter 1.1 reads as follows:

1.1.010 Definitions.

The following definitions apply to this Chapter:

A. "Customer" means any person purchasing goods from a store.

B. "Operator" means the person in control of, or having the responsibility for, the operation of a store, which may include, but is not limited to, the owner of the store.

C. "Person" means any natural person, firm, corporation, partnership, or other organization or group however organized.

D. "Plastic carryout bag" means any bag made predominantly of plastic derived from either petroleum or a biologically-based source, such as corn or other plant sources, which is provided to a customer at the point of sale. "Plastic carryout bag" includes compostable and biodegradable bags but does not include reusable bags, produce bags, or product bags.

E. "Postconsumer recycled material" means a material that would otherwise be destined for solid waste disposal, having completed its intended end use and product life cycle. "Postconsumer recycled material" does not include materials and by-products generated from, and commonly reused within, an original manufacturing and fabrication process.

F. "Produce bag" or "product bag" means any bag without handles used exclusively to carry produce, meats, or other food items to the point of sale inside a store or to prevent such food items from coming into direct contact with other purchased items.

G. "Recyclable" means material that can be sorted, cleansed, and reconstituted using available recycling collection programs for the purpose of using the altered form in the manufacture of a new product. "Recycling" does not include burning, incinerating, converting, or otherwise thermally destroying solid waste.

H. "Recyclable paper carryout bag" means a paper bag that meets all of the following requirements: (1) contains no old growth fiber, (2) is one hundred percent (100%) recyclable overall and contains a minimum of forty percent (40%) postconsumer recycled material; (3) is capable of composting, consistent with the timeline and specifications of the American Society of Testing and Materials (ASTM) Standard D6400; (4) is accepted for recycling in curbside programs in the County; (5) has printed on the bag the name of the manufacturer, the location (country) where the bag was manufactured, and the percentage of postconsumer recycled material used; and (6) displays the word "Recyclable" in a highly visible manner on the outside of the bag.

I. "Reusable bag" means a bag with handles that is specifically designed and manufactured for multiple reuse and

meets all of the following requirements: (1) has a minimum lifetime of 125 uses, which for purposes of this subsection, means the capability of carrying a minimum of 22 pounds 125 times over a distance of at least 175 feet; (2) has a minimum volume of 15 liters; (3) is machine washable; (4) does not contain lead, cadmium, or any other heavy metal in toxic amounts; (5) has printed on the bag, or on a tag that is permanently affixed to the bag, the name of the manufacturer, the location (country) where the bag was manufactured, a statement that the bag does not contain lead, cadmium, or any other heavy metal in toxic amounts, and the percentage of postconsumer recycled material used, if any; and (6) if made of plastic, is a minimum of at least 2.25 mils thick.

J. "Store" means any of the following retail establishments located within the City of Glendale:

(1) A full-line, self-service retail store with gross annual sales of two millon dollars ($2,000,000), or more, that sells a line of dry grocery, canned goods, or nonfood items and some perishable items;

(2) A store of at least 10,000 square feet of retail space that generates sales or use tax pursuant to the Bradley-Burns Uniform Local Sales and Use Tax Law (Part 1.5 (commencing with Section 7200) of Division 2 of the Revenue and Taxation Code) and that has a pharmacy licensed pursuant to Chapter 9 (commencing with Section 4000) of Division 2 of the Business and Professions Code; or (3) A drug store, pharmacy, supermarket, grocery store, convenience food store, foodmart, or other entity engaged in the retail sale of a limited line of goods that includes milk, bread, soda, and snack foods, including those stores with a Type 20 or 21 license issued by the Department of Alcoholic Beverage Control.

1.1.020 Plastic carrvout bags prohibited.

A. No store shall provide to any customer a plastic carryout bag.

B. This prohibition applies to bags provided for the purpose of carrying away goods from the point of sale and does not apply to produce bags or product bags.

1.1.030 Permitted bags.

All stores shall provide or make available to a customer only recyclable paper carryout bags or reusable bags for the purpose of carrying away goods or other materials from the point of sale, subject to the terms of this Chapter. Nothing in this Chapter prohibits customers from using bags of any type that they bring to the store themselves or from carrying away goods that are not placed in a bag, in lieu of using bags provided by the store.

1.1.040 Regulation of recyclable paper carrvout bags.

A. Any store that provides a recyclable paper carryout bag to a customer must charge the customer 10 cents ($0.10) for each bag provided, except as otherwise provided in this Chapter.

B. No store shall rebate or otherwise reimburse a customer any portion of the 10-cent ($0.10) charge required in Subsection A, except as otherwise provided in this Chapter.

C. All stores must indicate on the customer receipt the number of recyclable paper carryout bags provided and the total amount charged for the bags.

D. All monies collected by a store under this Chapter wil be retained by the store and may be used only for any of the following purposes: (1) costs associated with complying with the requirements of this Chapter, (2) actual costs of providing recyclable paper carryout bags, or (3) costs associated with a store's educational materials or education campaign encouraging the use of reusable bags, if any.

E. All stores must report to the Director of Public Works, on a quarterly basis, the total number of recyclable paper carryout bags provided, the total amount of monies collected for providing recyclable paper carryout bags, and a summary of any efforts a store has undertaken to promote the use of reusable bags by customers in the prior quarter. Such reporting must be done on a form prescribed by the Director of Public Works, and must be signed

by a responsible agent or officer of the store confirming that the information provided on the form is accurate and complete. For the periods from January 1 through March 31, April 1 through June 30, July 1 through September 30, and October 1 through December 31, all quarterly reporting must be submitted no later than 30 days after the end of each quarter.

F. If the reporting required in Subsection E is not timely submitted by a store, such store shall be subject to the fines set forth in Section 1.1.080.

1.1.050 Use of reusable bags.

A. All stores must provide reusable bags to customers, either for sale or at no charge.

B. Each store is strongly encouraged to educate its staff to promote reusable bags and to post signs encouraging customers to use reusable bags.

1.1.060 Exempt customers.

All stores must provide at the point of sale, free of charge, either reusable bags or recyclable paper carryout bags or both, at the store's option, to any customer participating either in the California Special Supplemental Food Program for Women, Infants, and Children pursuant to Article 2 (commencing with Section 123275) of Chapter 1 of Part 2 of Division 106 of the Health and Safety Code or in the Supplemental Food Program pursuant to Chapter 10 (commencing with Section 15500) of Part 3 of Division 9 of the Welfare and Institutions Code.

1.1.070 Operative date.

This Chapter shall become operative on July 1, 2011, for stores defined in Subsections J(1) and J(2) of Section 1.1.010. For stores defined in Subsection J(3) of Section 1.1.010, this Chapter shall become operative on January 1, 2012.

1.1.080 Enforcement and violation-penalty.

A. The Director of Public Works has primary responsibilty for enforcement of this Chapter. The Director of Public Works is authorized to promulgate regulations and to take any and all other actions reasonable and necessary to enforce this Chapter, including, but not limited to, investigating violations, issuing fines and entering the premises of any store during business hours. The Director of the Department of Agricultural Commissioner/Weights and Measures and the Director of Public Health may assist with this enforcement responsibility by entering the premises of a store as part of their regular inspection functions and reporting any alleged violations to the Director of Public Works.

B. If the Director of Public Works determines that a violation of this Chapter has occurred, he/she will issue a written warning notice to the operator of a store that a violation has occurred and the potential penalties that will apply for future violations.

C. Any store that violates or fails to comply with any of the requirements of this Chapter after a written warning notice has been issued for that violation shall be guilty of an infraction.

D. If a store has subsequent violations of this Chapter that are similar in kind to the violation addressed in a written warning notice, the following penalties will be imposed and shall be payable by the operator of the store:

(1) A fine not exceeding one hundred dollars ($100.00) for the first violation after the written warning notice is given;
(2) A fine not exceeding two hundred dollars ($200.00) for the second violation after the written warning notice is given; or
(3) A fine not exceeding five hundred dollars ($500.00) for the third and any subsequent violations after the written warning notice is given.

E. A fine shall be imposed for each day a violation occurs or is allowed to continue.

F. All fines collected pursuant to this Chapter shall be deposited in the Solid Waste Management Fund of the Department of Public Works to assist the department with its costs of implementing and enforcing the requirements of this Chapter.

G. Any store operator who receives a written warning notice or fine may request an administrative review of the accuracy of the determination or the propriety of any fine issued, by filing a written notice of appeal with the Director of Public Works no later than 30 days after receipt of a written warning notice or fine, as applicable. The notice of appeal must include all facts supporting the appeal and any statements and evidence, including copies of all written documentation and a list of any witnesses, that the appellant wishes to be considered in connection with the appeal. The appeal will be heard by a hearing officer designated by the Director of Public Works. The hearing officer will conduct a hearing concerning the appeal within 45 days from the date that the notice of appeal is filed, or on a later date if agreed upon by the appellant and the City, and will give the appellant 10 days prior written notice of the date of the hearing. The hearing officer may sustain, rescind, or modify the written warning notice or fine, as applicable, by written decision. The hearing officer will have the power to waive any portion of the fine in a manner consistent with the decision. The decision of the hearing officer is final and effective on the date of service of the written decision, is not subject to further administrative review, and constitutes the final administrative decision.

1.1.090 Severabilty.

If any section, subsection, sentence, clause, or phrase of this ordinance is for any reason held to be invalid by a decision of any court of competent jurisdiction, that decision will not affect the validity of the remaining portions of the ordinance. The City Council hereby declares that it would have passed this ordinance and each and every section, subsection, sentence, clause, or phrase not declared invalid or unconstitutional without regard to whether any portion of this ordinance would be subsequently declared invalid.

1.1.10 No conflict with federal or state law.

Nothing in this ordinance is intended to create any requirement, power or duty that is in conflict with any federal or state law.

Adapted from the County of Los Angeles Plastic Bag Ban Ordinance November 16, 2010.[24]

[24] For more information refer to their website at http://www.bragaboutyourbag.com

Appendix C: Draft Mandatory Commercial Recycling Ordinance

Except as covered under Chapter 8.58, all non-residential solid waste and all multifamily solid waste from buildings with five or more dwelling units shall either be taken to a certified mixed solid waste recycling facility that diverts over 25% (or an amount otherwise established by the Director) of all the accepted waste to its facility from Glendale from landfill or incineration, or a recycler that diverts more than 85% of all the accepted waste from landfill or incineration.[25] All non-residential and multifamily waste generators that generate a significant volume of yard trimmings (more than 200 gallons per year) shall participate in the yard trimming recycling program or otherwise prevent the waste from being disposed in landfill. Exceptions may be granted if the director determines that there is documented evidence that the waste is from generators participating in an approved source-separated recycling program or that it is a type of waste (for example roofing debris) not currently being recycled by local certified mixed solid waste recycling facilities. This ordinance will take affect July 1, 2012, or at a later date if the Director determines that sufficient certified mixed waste recycling facilities are not available at that time.

[25] Note: this is the dividing line in CalRecycle permits for what constitutes a source separated recycling facility that is not governed by solid waste facility regulations, and facilities which are governed by solid waste facility regulations.

Appendix D: Extended Producer Responsibility Resolution[26]

RESOLUTION NO. _____
RESOLUTION OF THE CITY OF GLENDALE
SUPPORTING EXTENDED PRODUCER RESPONSIBILITY

WHEREAS, approximately _____ tons of discarded materials and products are currently sent to disposal from our community on an annual basis at a cost of $_____ per ton; and

WHEREAS, on February 8, 2006 California's Universal Waste Rule (CCR, Title 22, Division 4.5, Chapter 23) became effective; and

WHEREAS, the Universal Waste Rule bans landfill disposal of certain products that are deemed hazardous, including household batteries, fluorescent bulbs and tubes, thermostats and other items that contain mercury, as well as electronic devices such as video cassette recorders, microwave ovens, cellular phones, cordless phones, printers, and radios; and

WHEREAS, it is anticipated that the list of Universal and other waste products determined to be hazardous and therefore banned from landfills will continue to grow as demonstrated by the ban of treated wood effective January 2007 and sharps in September 2008; and

WHEREAS, state policies currently make local governments responsible for achieving waste diversion goals and enforcing product disposal bans, both of which are unfunded mandates; and

WHEREAS, Universal Waste management costs are currently paid by taxpayers and rate payers and are expected to increase substantially in the short term unless policy changes are made; and

WHEREAS, local governments do not have the resources to adequately address the rising volume of discarded products; and

WHEREAS, costs paid by local governments to manage products are in effect subsidies to the producers of hazardous products and products designed for disposal; and

WHEREAS, costs paid in (year) for managing household batteries was equivalent to over $_____ per ton and the costs paid by the operator of the (Name) Transfer Station to properly dispose of fluorescent tubes was over $_____ per ton and the cost to manage (Name sharps or other products as desired); and

WHEREAS, if (City of Glendale) were able to collect all of the batteries and fluorescent tubes generated in (City of Glendale), such a service cost would more than all of the other current household hazardous waste programs combined (or language that is true for your jurisdiction; and

WHEREAS, the Board/City Council of (City of Glendale) supports statewide efforts to have producers share in the responsibilityfor UniversalWaste products and other product waste management costs; and

WHEREAS, there are significant environmental and human health impacts associated with improper management of Universal Waste, sharps, pharmaceuticals, and other products; and

WHEREAS, Extended Producer Responsibility (EPR) is a policy approach in which producers assume financial responsibility for management of waste products and which has been shown to be effective; and

WHEREAS, when products are reused or recycled responsibly, and when health and environmental costs are included in the product price, there is an incentive to design products that are more durable, easier to repair and recycle, and less toxic; and

[26] Source: Model Resolution from CA Product Stewardship Council: http://www.calpsc.org/policies/local/index.html. Also there is a Model Staff Report to go with this resolution at that same URL.

WHEREAS, EPR framework legislation establishes transparent and fair principles and procedures for applying EPR to categories of products for which improved design and management infrastructure is in the public interest; and

WHEREAS, the California Product Stewardship Council (CPSC) is an organization of California local governments working to speak with one voice in promoting transparent and fair EPR systems in California; and

WHEREAS, the (City of Glendale) wishes to incorporate EPR policies into the City's and County's product procurement practices to reduce costs and protect public health and the environment; and

WHEREAS, in January 2008 the California Integrated Waste Management Board, now known as CalRecycle, adopted a Framework for an EPR System in California; and

WHEREAS, in July 2008 the National Association of Counties adopted a resolution in support of a framework approach to EPR, November 2009 the National League of Cities adopted EPR policy, and June 2010 the US Conference of Mayors adopted a resolution in support of EPR; and

NOW, THEREFORE BE IT RESOLVED BY THE BOARD OF THE (City of Glendale) that the Board/Council of the (City of Glendale) that by adoption of this Resolution, the (City of Glendale) urges the CalRecycle to continue taking timely action to implement the Framework for an EPR System in California to manage problematic products, and to urge the Department of Toxic Substances Control to implement the Green Chemistry initiative to manage Universal and other toxic products; and

BE IT FURTHER RESOLVED, that the Board/Council of (City of Glendale) urges the California Legislature to enact product specific and framework EPR legislation which will give producers the incentive to design products to make them less toxic and easier to reuse and recycle; and

BE IT FURTHER RESOLVED, that the (staff/solid waste director) of (City of Glendale) be authorized to send letters to the California State Association of Counties, and the CalRecycle, and the State legislature and to use other advocacy methods to urge support for EPR Framework legislation and related regulations when deemed appropriate; and

BE IT FURTHER RESOLVED, that the Chair of the Board/Council of (City of Glendale) be authorized to sign the California Product Stewardship Council (CPSC) Pledge of Support and participate by contributing $_____ to CPSC to educate and advocate for EPR policies and programs; and

BE IT FURTHER RESOLVED, that the (City of Glendale) encourages all manufacturers to share in the responsibility for eliminating waste through minimizing excess packaging, designing products for durability, reusability and the ability to be recycled; using recycled materials in the manufacture of new products; and providing financial support for collection, processing, recycling, or disposal of used materials; and communicating with haulers and local governments about end of life management; and

BE IT FURTHER RESOLVED, that the (City of Glendale) and its member agencies develop producer responsibility policies such as leasing products rather than purchasing them and requiring producers to offer less toxic alternatives and to take responsibility for collecting and recycling their products and the end of their useful life.

PASSED AND ADOPTED by the Board of the (City of Glendale), State of California on _____by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

Signed: _____Date: (mo/day/year) ATTEST: _____
(Name), Chair (Name), Clerk
(City of Glendale)