

SECTION 1

INTRODUCTION

1.1 BACKGROUND AND HISTORY

The City through its Bureau of Sanitation (Bureau) in the Department of Public Works has provided solid resources management services to single-family and small multi-family residential households within the City of Los Angeles since 1890. Every week, three collection vehicles visit each of our 720,000 residential customers to collect recyclables, yard trimmings and refuse at curbside. The Bureau also provides special residential collection services such as bulky item, appliance and seasonal bulky brush collection at no additional cost.

The City's management of solid waste has changed dramatically since its inception in 1890 when the first solid waste crematory (incinerator) was constructed and the Bureau provided disposal service. In later years food and organic waste was collected for delivery to hog ranches, metals and other materials were reused or recycled, and combustible rubbish was burned in backyard incinerators or collected and disposed by private contractors. The use of backyard incinerators was banned in 1957; all household refuse was then collected and disposed directly into landfills.

Private hauling companies have collected all other refuse, including most multi-family and all commercial and industrial waste, in a free market system. Between the public and private sectors, over 3.7 million residents and 130,000 businesses are provided waste management services.

The City has developed a very strong waste management infrastructure over the last decade. Through both City and private sector efforts, a myriad of innovative source reduction, recycling, composting, and reuse programs have been implemented. These programs have made waste diversion inroads not only in City government, but also in the residential and commercial/industrial sectors as well. Due to the strength of this waste management infrastructure, the City has surpassed the State mandated 50% waste diversion rate for the reporting year 2000 with a diversion rate of 58.8%.

Despite the City's tremendous success thus far, reaching our adopted 70% diversion rate will require continued evaluation, planning, and implementation of comprehensive, new, and innovative diversion programs. These programs must be designed to maximize the opportunities for solid waste diversion available throughout a wide range of business, industrial, manufacturing, and governmental agency activities.

In 1989, the California Integrated Waste Management Act of 1989 (AB 939) was signed into law. AB 939 established a requirement for each jurisdiction within the state to meet waste diversion goals of 25% by the year 1995 and 50% by the year 2000. The responsibility for documenting waste diversion efforts for the entire City lies with the Bureau's Solid Resources Citywide Recycling Division.

Since 1990, the City has documented its progress in meeting state diversion requirements. The 1990, 1995, and 2000 diversion rates are shown in **Figure 1-1**.

1.2 PURPOSE AND OBJECTIVES

For the year 2000 AB 939 report, the Bureau's Solid Resources Citywide Recycling Division undertook a comprehensive study of disposal and diversion in the City. This study was conducted for a number of reasons:

- To assess the City's progress in meeting the AB 939 50% diversion requirement for 2000.
- To gain a better understanding of the existing solid waste disposal and diversion practices within the City.
- To plan for new programs which are critical in meeting the City's 70% diversion goal in the year 2020.

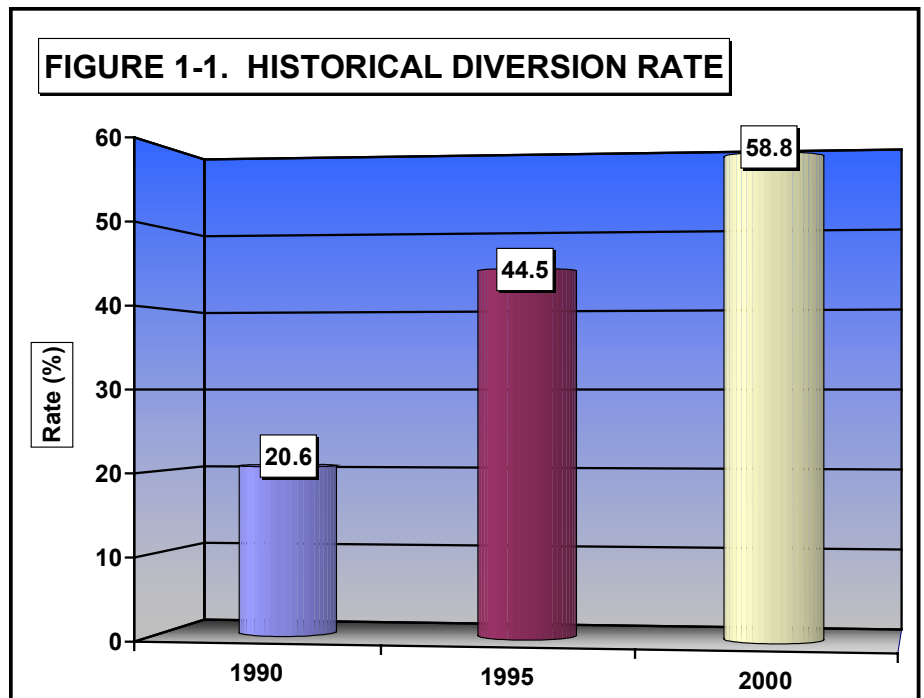
1.3 GENERATOR-BASED APPROACH AND METHODOLOGY

In order to gain a better understanding of the existing solid waste system in the City, and to document compliance with the diversion mandates of AB 939, the City used a generation-based approach to calculate its diversion rate. This approach relies on disposal and diversion data, collected from the public and private sectors. This data is combined into a waste generation study to determine the quantity of materials disposed and the quantity of materials diverted, either through source reduction, recycling, composting or other methods. These two are combined to total the City's waste generation. Finally, the data is utilized to determine the 2000 diversion rate, using the calculation of $\text{Diversion/Generation} = \text{Diversion Rate}$.

For purposes of this study, waste counted as disposal includes the following:

- Landfilled wastes.
- Transformed wastes.

This data is obtained from the County Disposal Reporting System, and is comprised of landfill and transformation facility disposal records as reported on a quarterly basis to the County where the facility is located. Each County in turn compiles the information and transmits this information to the individual jurisdictions. In the case of the City of Los Angeles, data is received from a number of counties, including Los Angeles, Kern, Orange, Riverside, San Bernardino, San Joaquin, Shasta, Stanislaus and Ventura Counties. For 2000, the Disposal Reporting System recorded a total of 3,750,281 tons of waste disposed from the City. Detailed information on the Disposal Reporting System is included in Section 2.0 of this report.



Diversion data was collected from a number of sources and studies as part of the 2000 AB 939 Project. For purposes of this report, diverted materials include the following:

- Residential recyclables.
- Residential and self-haul yard trimmings.
- Commercial and industrial recyclables.
- Residential and commercial/industrial source reduction activities.
- Materials used for landfill Alternative Daily Cover (ADC).
- Materials salvaged at landfills.
- Construction and demolition debris diverted from City projects.

The study approach relies on a number of data cross-checks, to ensure the most accurate reporting. In order to document existing disposal and diversion, the City conducted a number of studies during 2000. These included the following:

- Waste characterization and quantification study.
- City departments survey.
- Private hauler survey.
- Other government survey.
- Diversion study.
- Commercial/industrial generator surveys.

1.3.1 Waste Characterization Study

The disposal waste characterization study was conducted in 2000-2001, similar to studies conducted in 1995 and 1990. The data from this study will provide detailed information on the composition and quantities of waste that is disposed in the overall residential, commercial, industrial and institutional waste stream and to develop waste composition profiles and generation rates (or correlative factors) for 29 types of commercial generators. A description of the methodology utilized for the waste characterization study is included in Section 2.5 of this report.

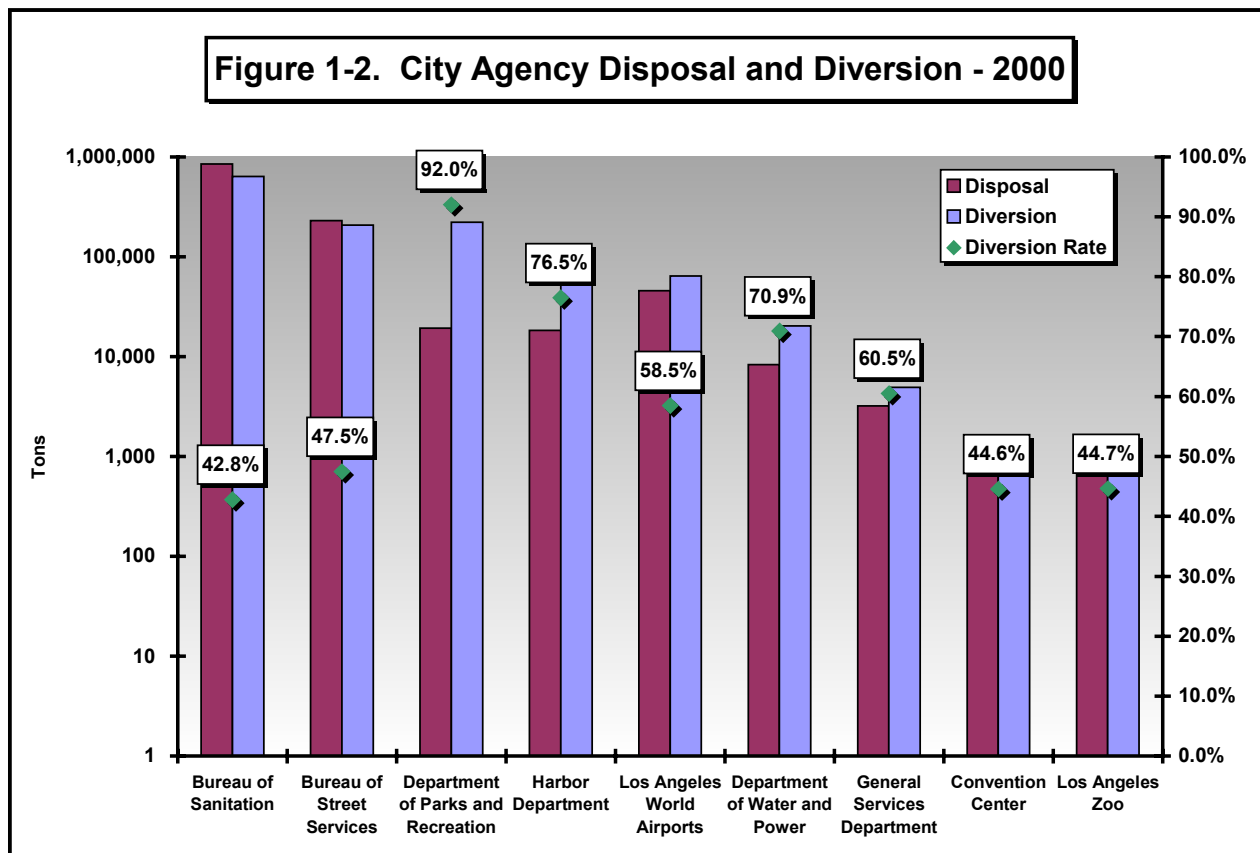
As the sampling for this study were not completed until late July 2001, the results of the waste characterization study are not available. For the Year 2000 AB939 Report, Disposal Reporting System data supplied by all counties receiving refuse from the City was used. When the waste characterization study is complete in Fall 2001, the data will be compared to that submitted in the Year 2000 Report. This data will be critical in planning new diversion programs based on the types and amounts of recyclable material still present in the City's wastestream. Although data from the waste characterization study is not available at this time, the disposal data used in this study is obtained from the State Disposal Reporting System and represents the most accurate and valid data at this point. This data was further verified by the City through surveys and inquiries of facilities that reported disposal tonnage from the City.

1.3.2 City Departments Survey

City departments constitute a large portion of the City's total waste stream, and therefore are an integral part of the City's strategy for meeting AB 939 goals. In 2000, each City department was sent a survey questionnaire asking them to provide information on Department operational activities, disposal and diversion tonnage information for calendar year 2000, new and on-going recycling, source reduction, reuse, and recycled-content procurement programs, and any

awards received due to resource efficiency, reuse, and/or recycling efforts. The results of the departmental surveys indicate that in 2000, City departments disposed of 1,176,721 tons and diverted 1,216,035 tons, for a diversion rate of 50.8%.

Of the City agencies that participated in the year 2000 report, nine departments reported over 98% of the disposal and diversion. In 2000, City agencies contributed 31.4% of total citywide disposed wastes. A summary of City agency disposal and diversion is shown in **Figure 1-2**. The individual description of each City department/agency is included in Section 5 of this report.



1.3.3 Private Hauler Survey

The purpose of the hauler survey is to identify the quantity of waste collected for disposal by private haulers operating in the City. In 2000, approximately 66 private haulers reported servicing the large multi-family complexes (greater than four units) and commercial and industrial businesses within the City. Private haulers disposed of two million tons of waste, or approximately 53% of total citywide disposed tons. The private hauler survey is detailed in Section 2.4 of this report.

1.3.4 Other Government Survey

This survey is intended to identify and survey all non-City governmental agencies located within the incorporated City boundaries. The survey requested information on existing and planned solid waste diversion programs and practices. The agencies surveyed included county, state

and federal agencies, special districts (such as Metropolitan Waste District and Metropolitan Transit Authority), offices and agencies of foreign governments, and international government agencies. Over 1,100 surveys were mailed to a variety of facility types, such as administrative offices, medical facilities, cultural facilities, recreational facilities, and prisons. The results of the survey indicated that other government facilities disposed of 237,000 tons of waste. This is 6% of the City's total disposed waste stream. The survey also documented that other government facilities diverted over 20,000 tons of material, resulting in an 8% diversion rate. The majority of the diversion resulted from grasscycling at parks and golf courses. The survey results are discussed in detail in Section 3.2.3.

1.3.4 Diversion Study

Part of the study included a survey of facilities to determine the quantity and composition of materials received and recycled by processors. The survey involved the compilation of a list of businesses and organizations in the recycling infrastructure, the preparation and mailing of a survey instrument, telephone follow-up, and the eventual compilation of the data received from the respondents. The study also collected data from the construction and demolition (C&D) companies, landscapers and gardeners, and data from the California Department of Conservation on the types and quantities of materials that qualify for California Redemption Value (CRV) in California. The survey was designed to avoid double-counting of diversion attributed to other recycling processors. The data was further evaluated to eliminate diversion resulting from City programs that is counted elsewhere in the study. Finally, back-up data was obtained and verified for all diversion data by material type and quantity. The results of the diversion survey indicate that 3.2 million total tons of materials were diverted in the City in 2000. The complete diversion study data is included in Section 3.2.1 of this report.

1.3.5 Commercial/Industrial Generator Survey

This portion of the project included both onsite and telephone surveys of commercial and industrial generators in the City. Generators were classified according to the Standard Industrial Code into 29 target groups, and stratified by size according to employment. Businesses from each target group and strata were then randomly selected for either an onsite audit or telephone survey. The survey instrument was developed to capture both disposal and diversion data, as well as to identify future diversion opportunities. A database was designed and developed to compile the generator data, and for statistical extrapolation and data analysis. Through the survey results, 153,218 tons of materials were documented by commercial and industrial generator source reduction programs in 2000. These results were added to the other study findings and are included in the final City diversion rate. A description of the generator survey methodology and results is included in Section 3.2.4 of this report.

1.4 STUDY TIMELINE

An aggressive timeline was established for the project in order to complete the 2000 Annual Report for submittal to the California Integrated Waste Management Board (CIWMB) by the August 1, 2001, deadline. The project schedule is included as **Exhibit 1**. The project began in September 2000, with a number of tasks commencing simultaneously. Generator audits began with training in September and conducting on-site waste audits in October. Over 500 audits were completed between October and December, and the data was entered into a master database comprised of the listings of over 130,000 businesses within the City. Generator telephone surveys were then conducted between February and April targeting generators who had not participated in the on-site audits.

Exhibit 1 (Project Schedule - 3 pages)

A two-season sort was scheduled for the generator waste characterization sampling. The winter sort was conducted in two phases, before and after the holiday season, in order to not skew the data. The summer sort was conducted in June for approximately five weeks. The results of the waste characterization study will not be completed until Fall 2001. At that time, the City may choose to submit a revised annual report, as well as a comprehensive analysis of the generator surveys. If necessary, the diversion rate, based on the final disposal data, may also be revised.

The surveys of other government agencies and private haulers were implemented in December 2000 and January 2001. By May 2001, each of the surveys was completed for the year 2000.

The City Department survey began in October 2000 with contacts to all City departments. This was followed up in February with a computer database and letter to all departments. The departments were requested to return their data by April. The majority of City departments completed their reports by June.

The diversion study commenced in January with a survey to over 1,500 recycling facilities, processors, and re-use businesses. The survey responses were received from 40% of the processors and businesses, and the data was compiled in May 2001 for the year 2000.

Although the CIWMB has notified the City that jurisdictions may submit their Year 2000 AB 939 Report in September, 2001, the City will submit the 2000 Annual Report to the CIWMB on August 1, 2001.