LOS ANGELES COUNTY SOURCE REDUCTION AND RECYCLING ELEMENT

VOLUME II - APPENDICES

LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS
WASTE MANAGEMENT DIVISION

AUGUST 1993

VOLUME II

APPENDICES TO THE SOURCE REDUCTION AND RECYCLING ELEMENT FOR THE UNINCORPORATED PORTIONS OF LOS ANGELES COUNTY

LIST OF APPENDICES

Appendix A: Source Reduction and Recycling Element Checklist

Appendix B:
- B-1: Study Methodology/CIWMB Response Letters
- B-2: Waste Hauler Survey Form
- B-3: SIC Codes
- B-4: Waste Sorting Plan
- B-5: Waste Sampling Results/Data Sheets
- B-6: Existing Comparable Data
- B-7: Analysis of Variance Formulas
- B-8: Puente Hills Recycle, Survey Results
  United Pacific Corporation, Survey Results
- B-9: Household Source Reduction and Recycling Survey Form
- B-10: Household Survey Statistical Calculations
- B-11: Conversion Factors for Waste Types
- B-12: Letter from the LACIWM Task Force to the CIWMB dated March 28, 1991

Appendix C: Field Sampling Procedures

Appendix D: Evaluation Methodology for Alternative Diversion Programs

Appendix E: BVA Materials Recovery Facility General Estimates For Project Planning

Appendix F: Los Angeles County Solid Waste Management Action Plan Dated April 5, 1988

Appendix G: Ordinance of the Council of the City of Glendale Regarding Disposal of Refuse

Appendix H: Comments on the Preliminary Draft SRRE

Appendix I: Proof of Distribution and Publication of the Preliminary Draft SRRE and HHWE

JT:jk
CS1/TC.TXT

APPENDIX A

Source Reduction and Recycling Element Checklist

SRRE CHECKLIST

This checklist is provided as an aid to local jurisdictions for the preparation and completion of Source Reduction and Recycling Elements. It is designed to be a "quick reference guide" or outline of Articles 6.2, and 6.1 (see attachment) and is not meant to be used as the regulatory authority for completing these documents. The Statutes, Regulations, and Statement of Reasons should be carefully scrutinized by jurisdictions as they prepare their SRREs.

The spaces in the left margin can be used to check off portions of the Element as they are completed. The format presented here is not required by the CIWMB, but is presented as one way to organize the contents of an Element. Additions such as the Executive Summary and Technical Appendices are not required by regulation, but are included only as suggestions. It is hoped that this checklist will help local jurisdictions to prepare and complete SRREs.

Questions concerning the use of this checklist can be directed to the Local Assistance Branches (North and South) of the CIWMB's Local Planning Division, at (916)327-0441.

GENERAL STRUCTURE OF THE FIRST 4 COMPONENTS

INCLUDE IN ALL 4 COMPONENTS	ADDITIONAL SPECIFIC REQUIREMENTS			
(MODEL COMPONENT FORMAT)	Source Reduction	Recycling	Composting	Special Waste
Objectives 18733.1	18734.1	18735.1	18736.1	18737.1
Existing Conditions Description 18733.2	18734.2	18735.2	18736.2	18737.2
Evaluation of Alternatives 18733.3	18734.3	18735.3	18736.3	---
Program Selection 18733.4	---	18735.4	18736.4	---
Program Implementation 18733.5	---	18735.5	---	---
Monitoring and Evaluation 18733.6	---	---	---	---

SRRE CHECKLIST

I. EXECUTIVE SUMMARY

II. SOURCE REDUCTION AND RECYCLING ELEMENT

Chapter 1. Statement of Goals and Objectives (18731)

1.2 Define goals and objectives for short- and medium-term planning periods.
1.2.1 Include summary of percentages to be diverted through each component program.
1.2.1 Include time frame for achievement of each objective.

Suggestion: this chapter can include a summary of the objectives listed for each component, and a table summarizing percentages diverted and the time frame for each objective.

Chapter 2. Solid Waste Generation Analysis (18732)

Along with the solid waste generation analysis outlined in the attachment, the following 4 lists must be included:
2.4.3 (a) by specific waste categories, a list of quantities of
2.3.7, 2.4.4 materials currently diverted, and a list of quantities of materials currently disposed
2.6 (b) a list of waste materials disposed that could potentially be diverted by programs described in this document
2.7 (c) a list of waste materials disposed that can't be diverted and why

Chapter 3. Source Reduction Component

1. Objectives (18733.1, 18734.1)
(based on Solid Waste Generation Analysis and other local conditions as necessary)

3.2 (a) State specific objectives to be accomplished during short and medium-term by this component, including
3.2 (1) reducing use of non-recyclable materials
3.2 (2) replacing disposable materials with reusable
3.2 (3) reducing packaging
3.2 (4) reducing amount of yard waste generated
3.2 (5) purchasing repairable products

3.2 (6) increasing efficiency of use of materials

3.2 (b) Identify priority waste categories or types for diversion by source reduction, which may be based on
3.2 (1) volume/weight/hazard of material
3.2 (2) whether material, products, or packaging are made of non-renewable resources
3.2 (3) potential to extend life of materials
3.2 (4) whether waste type has limited recyclability

2. **Existing Conditions Description** (18733.2, 18734.2)

(a) as applicable, include description of existing diversion alternatives as follows:
3.3 (1) Brief description of existing source reduction alternatives currently being done by public and private entities, including govt, commercial, industrial
3.3 (2) Quantity (in vol. or wt.) diverted for each alternative, listed by category and type
- o describe, document, and verify methods, assumptions results
- o must use best readily available data

3.3 (3) Description of alternatives that will be decreased in scope, effects of this on existing solid waste management, and effects on attainment of mandated diversion goals.

NOTE: The above is an important section since it will be "used to support the quantification of existing diversion alternatives to determine the current percentage of solid waste diverted". 18733.2

3. **Evaluation of Alternatives** (18733.3, 18734.3)

3.4.1 (a) Each alternative shall be evaluated in terms of
3.4.1 (1) effectiveness in reduction of waste
3.4.1 (2) hazards created
3.4.1 (3) ability to accommodate change
3.4.1 (4) consequences on the waste (i.e., shifts)
3.4.1 (5) whether can be implemented in short- and medium-term planning periods
3.4.1 (6) need for expanding/building facilities

(b) For each alternative also include discussion of
3.4.1 (1) consistency with local conditions
3.4.1 (2) institutional barriers to implementation
3.4.1 (3) estimate of costs
3.4.1 (4) availability of end uses of diverted materials

(c) Four specific source reduction alternatives shall be considered:

3.4.1 (1) rate structure modifications, which may include:
3.4.1 o local waste disposal fee modifications
3.4.1 o quantity-based local user fees
3.4.1 (2) creation of economic incentives, which may include:
3.4.1 o loans, grants, loan guarantees
3.4.1 o deposits, refunds, rebates
3.4.1 o reduced business license fees
3.4.1 (3) technical assistance or instructional and promotional alternatives, which may include:
3.4.1 o waste evaluations
3.4.1 o establishment of compost programs at site of generation
3.4.1 o technical assistance to industry and consumer organizations and source reduction businesses
3.4.1 o education efforts
3.4.1 o awards/other public recognition for source reduction
3.4.1 o non-procurement source reduction programs (2-sided copies, etc.)
3.4.1 (4) regulatory programs, which may include:
3.4.1 o local ordinances of criteria for procuring products, such as durability, recyclability, reusability, and recycled material content
3.4.1 o local incentives for land-use development that promote source reduction
3.4.1 o local requirements of waste reduction planning and reporting by generators
3.4.1 o local adoption of bans on products and packaging

4. Selection of Program (18733.4)

3.5 (a) Identify and describe alternatives selected, including
3.5.2 o existing alternatives
3.5.2 o expansions of existing alternatives
3.5.3 o new alternatives to be implemented

(b) For each alternative, discuss
3.5.3 (1) why it was selected, based on data in waste generation study, and the evaluations above
3.5.4 (2) estimate anticipated quantities to be diverted
3.5.4 o by diversion program and waste type
3.5.4 o for short-term and medium-term planning periods
3.5.4 o in vol. or wt.
3.5.4 o and % it will contribute to 25%/50% goals
3.5.5 (3) as applicable, list of end uses for diverted materials (based on evaluation above)
3.5.6 (4) as applicable, description of proposed methods for necessary handling and disposal

3.5.7 (5) as applicable, description of facilities to be used, which the evaluation has shown must be expanded or built

5. Program Implementation (18733.5)

3.6 (a) Identify govt agencies, organizations, etc. responsible to implement the program
3.6 (b) Identify tasks necessary for implementation
3.6 (c) Identify short-term and medium-term implementation schedule addressing each task
3.6 (c) Identify known costs, revenues, and revenue sources necessary for implementation

6. Monitoring and Evaluation (18733.6)

3.7.1 (a) Identify methods to quantify and monitor achievement of objectives, including diversion from landfills and transformation facilities, and reduction of waste hazard
___ Also, quantify waste diverted in vol. or wt., and in percent of total waste generated.

3.7.2 (b) Use one of the following methods to monitor programs and evaluate compliance with mandated diversion requirements:
(1) Further Waste Generation Study
3.7.2 (2) targeted solid waste characterization studies, to measure changes
3.7.2 (3) assessment of changes in design, production, distribution, sale, and/or use of products/packages which affect waste generation.
___ (4) another method approved by the Board.

(c) From the methods selected, provide
3.7.3.1 (1) written criteria for evaluating program's effectiveness
3.7.3.2 (2) identification of agencies/persons/etc. responsible for monitoring, evaluating, reporting
3.7.3.3 (3) identification of known monitoring and evaluation funding requirements, revenues, revenue sources
3.7.3.4 (4) identification of measures to be implemented if monitoring shows shortfall in attaining objectives/diversion mandates. Measures may include:
3.7.3.4 (A) increasing frequency of monitoring/review of program
___ (B) modification of objectives or diversion alternatives

Chapter 4. Recycling Component

1. Objectives (18733.1, 18735.1)
(based on Solid Waste Generation Analysis and other local conditions as necessary)

4.2 (a) State specific objectives to be accomplished during short and medium-term by this component, including a statement of market development objectives to be achieved in short- and medium-term planning periods.

4.2.3 (b) Identify priority waste categories or types for diversion by recycling, which may be based on
4.2.3 (1) volume/weight/hazard of material
4.2.3 (2) whether material, products, or packaging are made of non-renewable resources

2. Existing Conditions Description (18733.2, 18735.2)

(a) as applicable, include description of existing diversion alternatives as follows:
4.3.1 (1) Brief description of existing recycling alternatives
4.3.2 (2) Quantity (in vol. or wt.) diverted for each alternative, listed by category and type
4.3.3 (3) Description of alternatives that will be decreased in scope, effects of this on existing solid waste management, and effects on attainment of mandated diversion goals.

(b) Description of:
4.5.2 o existing private and public recycling activities
4.5.2.9 o existing local market development activities, including government procurement programs
___ o economic development activities
___ o consumer incentives
4.5.2.8 o education programs

NOTE: The above is an important section since it will be "used to support the quantification of existing diversion alternatives to determine the current percentage of solid waste diverted". 18733.2

3. Evaluation of Alternatives (18733.3, 18735.3)

4.4.3 (a) Each alternative shall be evaluated in terms of
4.4.3.1 (1) effectiveness in reduction of waste
4.4.3.1 (2) hazards created
4.4.3.1 (3) ability to accommodate change
4.4.3.1 (4) consequences on the waste (i.e., shifts)

4.4.3.1 (5) whether can be implemented in short- and medium-term planning periods
4.4.3.1 (6) need for expanding/building facilities

(b) For each alternative also include discussion of
4.4.3.1 (1) consistency with local conditions
4.4.3.1 (2) institutional barriers to implementation
4.4.3.1 (3) estimate of costs
4.4.3.1 (4) availability of end uses of diverted materials

___ (c) Analyze recycling alternatives affecting residential, commercial, and industrial wastes. Take into account existing programs and their possible expansion. Address advantages/disadvantages of public vs. private ownership or operation of recycling programs and facilities.
4.4.3.1 (1) alternatives must include the following methods for accomplishing separation of recyclables:
4.4.3.1 o separation at source (curbside & mobile collection systems)
4.4.3.1 o drop-off recycling centers
4.4.3.1 o buy-back recycling centers
4.4.3.1 o manual material recovery operations
4.4.3.1 o mechanized material recovery operations which produce a product which has a market
4.4.3.1 o salvage at solid waste facilities
4.4.3.1 (2) discuss feasibility of changing zoning and building codes to encourage recycling
4.4.3.1 (3) discuss feasibility of changing rate structures to encourage recycling
4.4.3.1 (4) discuss methods to increase markets for recycled materials
4.4.3.1 (5) encourage handling methods that preserve integrity of recovered materials (consider separation at point of generation)

4. Selection of Program (18733.4, 18735.4)

4.5.3 (a) **Identify and describe alternatives selected, including**
4.5.3 o **existing alternatives**
4.5.3 o **expansions of existing alternatives**
4.5.3 o **new alternatives to be implemented**

(b) For each alternative, discuss
4.5.3 (1) why it was selected, based on data in waste generation study, and the evaluations above
4.5.4 (2) estimate anticipated quantities to be diverted
4.5.4 o by diversion program and waste type
4.5.4 o for short-term and medium-term planning periods
4.5.4 o in vol. or wt.

4.5.4 o and % it will contribute to 25%/50% goals
4.5.5 (3) as applicable, list of end uses for diverted materials (based on evaluation above)

4.5.6 (4) as applicable, description of proposed methods for necessary handling and disposal
4.5.7 (5) as applicable, description of facilities to be used, which the evaluation has shown must be expanded or built

4.5.5 (c) Identify end markets or end users to be secured during short-term. If this can't be done, identify how markets will be secured.
4.5.5 (1) can describe markets in general terms
4.5.5 (2) also described planned development of markets at manufacturing facilities in the jurisdiction.

4.7.3.4 (d) Describe measures to be taken if unfavorable market conditions or other unfavorable conditions occur which are beyond the jurisdiction's control and which prevent reaching 25%/50% goals.

5. Program Implementation (18733.5, 18735.5)

4.6 (a) Identify govt agencies, organizations, etc. responsible to implement the program
4.6 (b) Identify tasks necessary for implementation
4.6 (c) Identify short-term and medium-term implementation schedule addressing each task
4.6.3 (d) Identify known costs, revenues, and revenue sources necessary for implementation
4.4.2.3 (e) Denote actions planned to deter unauthorized removal of recyclables, which adversely affect program.

6. Monitoring and Evaluation (18733.6)

4.7.1 (a) Identify methods to quantify and monitor achievement of objectives, including diversion from landfills and transformation facilities, and reduction of waste hazard
4.7.2 Also, quantify waste diverted in vol. or wt., and in percent of total waste generated.

4.7.2 (b) Use one of the following methods to monitor programs and evaluate compliance with mandated diversion requirements:
(1) Further Waste Generation Study
4.7.2 (2) targeted solid waste characterization studies, to measure changes

4.1.1 (3) assessment of changes in design, production, distribution, sale, and/or use of products/packages which affect waste generation.
___ (4) another method approved by the Board.

(c) From the methods selected, provide
4.1.3.1 (1) written criteria for evaluating program's effectiveness
4.1.3.2 (2) identification of agencies/persons/etc. responsible for monitoring, evaluating, reporting
4.1.3.3 (3) identification of known monitoring and evaluation funding requirements, revenues, revenue sources
4.1.3.4 (4) identification of measures to be implemented if monitoring shows shortfall in attaining objectives/diversion mandates. Measures may include:
4.1.3.4 (A) increasing frequency of monitoring/review of program
4.1.3.4 (B) modification of objectives or diversion alternatives

Chapter 5. Composting Component

1. Objectives (18733.1, 18736.1)
(based on Solid Waste Generation Analysis and other local conditions as necessary)

5.2 (a) State specific objectives to be accomplished during short and medium-term by this component, including a statement of market development objectives to be achieved in short- and medium-term planning periods.

5.2.3 (b) Identify priority waste categories or types for diversion by composting, which may be based on
5.2.3 (1) volume/weight/hazard of material
___ (2) whether material, products, or packaging made of non-renewable resources

2. Existing Conditions Description (18733.2, 18736.2)

(a) as applicable, include description of existing diversion alternatives as follows:
5.3 (1) Brief description of existing composting alternatives
___ (2) Quantity (in vol. or wt.) diverted for each alternative, listed by category and type
5.3 (3) Description of alternatives that will be decreased in scope, effects of this on existing solid waste management, and effects on attainment of mandated diversion goals.

(b) Description of:
5.3 o existing local market development activities, including government procurement programs
5.3 o economic development activities
5.3 o consumer incentives

NOTE: The above is an important section since it will be "used to support the quantification of existing diversion alternatives to determine the current percentage of solid waste diverted". 18733.2

3. Evaluation of Alternatives (18733.3, 18736.3)

5.4.4 (a) Each alternative shall be evaluated in terms of
5.4.4.1 (1) effectiveness in reduction of waste
5.4.4.10 (2) hazards created
5.4.4.11 (3) ability to accommodate change
5.4.4.12 (4) consequences on the waste (i.e., shifts)
5.4.4.7 (5) whether can be implemented in short- and medium-term planning periods
5.4.4.5 (6) need for expanding/building facilities

(b) For each alternative also include discussion of
5.4.4.4 (1) consistency with local conditions
5.4.4.3 (2) institutional barriers to implementation
5.4.4.2 (3) estimate of costs
5.4.4.6 (4) availability of end uses of diverted materials

(c) Alternatives will qualify toward diversion mandates only if the product results from controlled biological decomposition of organic wastes that are source separated from municipal solid waste stream or separated at a centralized facility.
(d) Alternatives do not include composting at site of generation by generator (this is source reduction).

4. Selection of Program (18733.4, 18736.4)

5.5.3 (a) Identify and describe alternatives selected, including
5.5.2 o existing alternatives
5.5.2 o expansions of existing alternatives
5.5.3 o new alternatives to be implemented

(b) For each alternative, discuss
5.5.3 (1) why it was selected, based on data in waste generation study, and the evaluations above
5.5.4 (2) estimate anticipated quantities to be diverted
5.5.4 o by diversion program and waste type
5.5.4 o for short-term and medium-term planning periods

(✓)

5.5.4 o in vol. or wt.
5.5.4 o and % it will contribute to 25%/50% goals
5.5.5 (3) as applicable, list of end uses for diverted materials (based on evaluation above)
5.5.6 (4) as applicable, description of proposed methods for necessary handling and disposal
5.5.7 (5) as applicable, description of facilities to be used, which the evaluation has shown must be expanded or built

5.5.5 (c) Identify end markets or end users to be secured during short-term. If this can't be done, identify how markets will be secured.
5.5.5 (1) can describe markets in general terms
5.5.5 (2) also described planned development of markets at manufacturing facilities in the jurisdiction.

5.7.3.4 (d) Describe measures to be taken if unfavorable market conditions or other unfavorable conditions occur which are beyond the jurisdiction's control and which prevent reaching 25%/50% goals.

5. Program Implementation (18733.5)

5.6 (a) Identify govt agencies, organizations, etc. responsible to implement the program
5.6 (b) Identify tasks necessary for implementation
5.6 (c) Identify short-term and medium-term implementation schedule addressing each task
5.6.3 (d) Identify known costs, revenues, and revenue sources necessary for implementation

6. Monitoring and Evaluation (18733.6)

5.7.1 (a) Identify methods to quantify and monitor achievement of objectives, including diversion from landfills and transformation facilities, and reduction of waste hazard Also, quantify waste diverted in vol. or wt., and in percent of total waste generated.

5.7.2 (b) Use one of the following methods to monitor programs and evaluate compliance with mandated diversion requirements:
(1) Further Waste Generation Study
5.7.2 (2) targeted solid waste characterization studies, to measure changes
5.7.2 (3) assessment of changes in design, production, distribution, sale, and/or use of products/packages which affect waste generation.
___ (4) another method approved by the Board.

(c) From the methods selected, provide
5.7.3.1 (1) written criteria for evaluating program's effectiveness
5.7.3.2 (2) identification of agencies/persons/etc. responsible for monitoring, evaluating, reporting
5.7.3.3 (3) identification of known monitoring and evaluation funding requirements, revenues, revenue sources

5.7.3.4 (4) identification of measures to be implemented if monitoring shows shortfall in attaining objectives/diversion mandates. Measures may include:
(A) increasing frequency of monitoring/review of program
5.7.3.4 (B) modification of objectives or diversion alternatives

Chapter 6. Special Waste Component

1. **Objectives** (18733.1, 18737.1)
(based on Solid Waste Generation Analysis and other local conditions as necessary)

6.2 (a) State specific objectives to be accomplished during short and medium-term by this component, including plan to reduce hazard potential of special wastes by waste type

6.2 (b) Identify priority waste categories or types for diversion, which may be based on
6.2 (1) volume/weight/hazard of material
(2) whether material, products, or packaging are made of non-renewable resources

2. **Existing Conditions Description** (18733.2, 18737.2)

(a) as applicable, include description of existing diversion alternatives as follows:
6.3 (1) Brief description of existing special waste program, including description of existing solid waste facilities permitted to handle/dispose of special wastes.
6.3 Where applicable, include discussion of other regulatory agency requirements, permits, documents associated with operation of facilities (regulatory agencies include, but are not limited to: RWQCB, AQMD, DHS).
6.3.2 (2) Quantity (in vol. or wt.) diverted for each alternative, listed by category and type
6.3.3 (3) Description of alternatives that will be decreased in scope, effects of this on existing solid waste management, and effects on attainment of mandated diversion goals.

6.34 (b) Discuss special wastes identified in waste generation study for which there is currently no permitted handling or disposal method within the jurisdiction.

NOTE: The above is an important section since it will be "used to support the quantification of existing diversion alternatives to determine the current percentage of solid waste diverted". 18733.2

3. Evaluation of Alternatives (18733.3)

6.4 (a) Each alternative shall be evaluated in terms of
6.4.1 (1) effectiveness in reduction of waste
6.4.1 (2) hazards created
6.4.1 (3) ability to accommodate change
6.4.1 (4) consequences on the waste (i.e., shifts)
6.4.1 (5) whether can be implemented in short- and medium-term planning periods
6.4.1 (6) need for expanding/building facilities

(b) For each alternative also include discussion of
6.4.1 (1) consistency with local conditions
6.4.1 (2) institutional barriers to implementation
6.4.1 (3) estimate of costs
6.4.1 (4) availability of end uses of diverted materials

4. Selection of Program (18733.4)

6.5 (a) Identify and describe alternatives selected, including
6.5.1 o existing alternatives
6.5.1 o expansions of existing alternatives
6.5.1 o new alternatives to be implemented

(b) For each alternative, discuss
6.5.1 (1) why it was selected, based on data in waste generation study, and the evaluations above
6.5.2 (2) estimate anticipated quantities to be diverted
6.5.2 o by diversion program and waste type
6.5.2 o for short-term and medium-term planning periods
6.5.2 o in vol. or wt.
6.5.2 o and % it will contribute to 25%/50% goals
6.5.3 (3) as applicable, list of end uses for diverted materials (based on evaluation above)
6.5.4 (4) as applicable, description of proposed methods for necessary handling and disposal
6.5.5 (5) as applicable, description of facilities to be used, which the evaluation has shown must be expanded or built

5. Program Implementation (18733.5)

6.6.1 (a) Identify govt agencies, organizations, etc. responsible to implement the program
6.6.2 (b) Identify tasks necessary for implementation
6.6.2 (c) Identify short-term and medium-term implementation schedule addressing each task
6.6.3 (c) Identify known costs, revenues, and revenue sources necessary for implementation

6. Monitoring and Evaluation (18733.6)

6.7 (a) Identify methods to quantify and monitor achievement of objectives, including diversion from landfills and transformation facilities, and reduction of waste hazard
___ Also, quantify waste diverted in vol. or wt., and in percent of total waste generated.

6.7.1 (b) Use one of the following methods to monitor programs and evaluate compliance with mandated diversion requirements:
6.7.1 (1) Further Waste Generation Study
6.7.1 (2) targeted solid waste characterization studies, to measure changes
6.7.1 (3) assessment of changes in design, production, distribution, sale, and/or use of products/packages which affect waste generation.
___ (4) another method approved by the Board.

(c) From the methods selected, provide
6.7.2 (1) written criteria for evaluating program's effectiveness
6.7.3 (2) identification of agencies/persons/etc. responsible for monitoring, evaluating, reporting
6.7.4 (3) identification of known monitoring and evaluation funding requirements, revenues, revenue sources
6.7.5 (4) identification of measures to be implemented if monitoring shows shortfall in attaining objectives/diversion mandates. Measures may include:
6.7.5 (A) increasing frequency of monitoring/review of program
6.7.5 (B) modification of objectives or diversion alternatives

Chapter 7. Education and Public Information Component (18740)

7.2 **(a) Objectives**
Include statement of objectives for short- and medium-term planning periods.

7.3 **(b) Existing Program Description**
Describe all existing education and public information programs and activities within jurisdiction which promote source reduction, recycling, composting, safe handling and disposal of solid waste.

7.4 **(c) Selection of Program Alternatives**
Incorporate data from solid waste generation study to identify generators to be targeted for education and public information programs.

(d) Program Implementation

7.5.2 (1) Identify agencies/persons/etc. responsible for implementation

7.5.2 (2) Identify required implementation tasks

(3) Establish short- and medium-term implementation schedules

7.5.3 (4) Identify all public and private program implementation costs, revenues, revenue sources necessary for program implementation

(e) Monitoring and Evaluation

7.6.1 (1) Identify methods to be used to measure achievement of objectives

7.6.2 (2) Establish written criteria by which to evaluate effectiveness

7.6.3 (3) Identify agencies/persons/etc. responsible for program monitoring, evaluation, reporting

7.6.5 (4) Identify monitoring/evaluation funding requirements, revenues, revenue sources

7.6.6 (5) Identify measures to be implemented if monitoring shows shortfall in attaining diversion objectives

7.6.4 (6) Establish program monitoring and reporting schedule

Chapter 8. Disposal Facility Capacity Component (18744)

8.2 (a) Identify and describe all existing permitted solid waste landfills and transformation facilities within the jurisdiction. Include:

8.2 (1) Identification of owner/operator of each facility

8.2 (2) Quantity and types of solid waste disposed

8.2 (3) Permitted site acreage

8.2 (4) Permitted capacity

8.2 (5) Current disposal fees

8.2 (6) For solid waste landfills, remaining facility capacity in cubic yards and years.

8.4 (b) Include solid waste disposal facility needs projection, which estimates additional disposal capacity (in cubic yards/yr) needed for 15 years starting in 1991.

8.4 (1) Needs projections must be calculated based on solid waste generation projection in the solid waste generation study.

8.4 (2) The 15-yr needs projection must use the formula in section 18744(b)(2).

(c) Include discussions of

8.5 (1) Facilities to be phased out or closed during short- and medium-term planning periods, and effect on disposal capacity needs.

8.6 (2) Plans to establish new or expanded facilities for the short- and medium-term planning periods, and projected additional capacity of each.

(**NOTE:** The following was added at 1/23/91 Board meeting, and will undergo 15 day comment period.)

8.7 (3) Plans to export waste to another jurisdiction for the short-term and medium-term planning periods, and the projected addtional capacity of proposed export agreements.

Chapter 9. Funding Component (18746)

9.5 (a) Must demonstrate there is sufficient funding and allocation of resources for:

9.4 (1) Program planning and development

9.4 (2) Implementation of programs to meet 25%/50% goals

9.4 (b) Provide cost estimates for component programs scheduled for implementation in the short-term planning period.

9.5 (c) Identify revenue sources sufficient to support component programs.

9.6 (d) Identify sources of contingency funding for component programs.

Chapter 10. Integration Component (18748)

10.2 (a) Explain how the source reduction, recycling, composting, and special waste components combine to achieve the 25%/50% mandates. Include:

10.2 (1) Description of solid waste management practices which fulfill goal of promoting integrated waste management in the following order:

10.2.1 (A) source reduction
10.2.4 (B) recycling and composting
10.2.6 (C) environmentally safe transformation and
10.2.5 environmentally safe land disposal

10.5.1 (2) Explain how jurisdiction has integrated the components to maximize use of all feasible source reduction, recycling, and composting options
10.5 (3) Explain how components jointly achieve diversion mandates
10.5.3 (4) Explain how priorities between components were determined

10.6 (b) Submit integrated schedule, which includes:
10.6 (1) Calendar scheduling all implementation tasks for new and expanded programs, through the short-term planning period, as identified in the first 4 components. Include descriptive title for each task, entity implementing task, start/milestone dates, schedule for funding source availability.
10.6 (A) implementation tasks are those in each component which satisfy requirements of 18733.5(b) and 18740(d).

10.6 (2) Schedule must show anticipated date of achievement of 25%/50% diversion mandates.

III. TECHNICAL APPENDICES

Attachment

January 28, 1991

This checklist is a guide that will help you in writing or reviewing the Solid Waste Generation Study (SWGS) part of the Source Reduction and Recycling Element (SRRE). It re-states what is required by the regulations, and contains the details our staff will be looking for when reviewing the Draft and Final SRRE's.

The checklist is not a required document, i.e., you are not required to follow it, fill it out, or submit it to the the Board. However, it will help clarify what details should be included in the study. Using it and submitting it will not only help you in making sure your study is complete, but will greatly facilitate our review of the document.

Since there are so many specific details we will be looking for in this part of the study, for this section of the checklist we are requesting that you write the page number (instead of just checking-off) where that information is located in the report.

CONTENTS

1.	Quantity Disposed or Transformed	pg. 1
2.	Quantity Diverted	pg. 6
3.	Quantity Generated	pg. 10
4.	"Source" Characterization	pg. 12

CHECKLIST
FOR CONSULTANTS AND JURISDICTIONS
ON THE INITIAL WASTE GENERATION STUDY

Quantity Disposed or Transformed

PAGE(S)

Projections 18722 (c)

____ 1. Was a 15-year projection of the quantity of wastes disposed under current conditions included?

____ 2. Was a 15-year projection of the quantity of wastes disposed under conditions set forth by the SRRE included?

____ 3. Were each of the projections listed on a year-by-year basis? (See Tables 1 and 2 for suggested presentation.)

____ 4. Were the information sources used to determine and project changes in waste generators taken from the list in Section 18722 (c)(1)?

Information Sources

____ 1. Were all information sources, used to determine quantities of wastes disposed, fully referenced?

Conversion Factors 18722 (f)(1)

____ 1. Were all conversion factors related to disposal provided for all calculations that use them?

____ 2. Was each conversion factor fully referenced (including author, title, publisher, page number and year published)?

____ 3. If the conversion factor(s) was derived from test measurements developed by the jurisdiction, was an explanation included of how the test measurements were developed?

Units of Measurement 18722 (f)(4)

____ 1. Was the quantity of wastes disposed and/or transformed reported in both volume and weight?

____ 2. Was the volume measurement of solid wastes disposed expressed in terms of in-place volume, after compaction, in the landfill?

SAMPLING METHODS 18722 (1)(1-4), 18724 (b) and (c), and Appendix 1

____ 1. Were one or more of the following sampling methods used to determine the quantity of wastes disposed or transformed: Quantitative Field Analysis (QFA), Materials Flow Methodology (MF), Jurisdiction-Specific Data (JSD), Existing Data from Comparable Jurisdictions(CJ), Data from Regional/Joint Generation Studies, or Pre-Existing Studies? (See Table 3 for

sugggested presentation.)

Quantitative Field Analysis

If QFA was used to determine the quantity of waste disposed and/or transformed, then;

____ was the data collected from either the source of generation, transfer vehicles, and/or permitted transformation and disposal facilities?

____ were all transfer stations, permitted solid waste transformation facilities and solid waste disposal sites identified?

____ were the number of units of each population (Residential, Commercial, Industrial, Other) listed?

____ was the population stratified before determining the number of samples to be taken?

____ if the population was not stratified, were the reasons for not stratifying provided in the report?

____ if either Klee and Carruth or the ASTM method was used, were all calculations shown for how the number of samples was determined for each waste generator?

____ if either Klee and Carruth or the ASTM method was used, was the precision level listed and discussed?

____ if the ASTM method was used, was a discussion included of how the governing component was selected?

____ if Klee and Carruth was used, was the study from which the "largest waste category" was taken in order to determine the number of samples cited in the report?

____ was a random sampling method (or another unbiased sampling procedure) used to select the units to be sampled from each population?

____ was a full description of the sampling method(s) used included with the study?

____ if Klee and Carruth or the ASTM methods were not used, was the method used to determine the number of samples provided, as well as a description of how the number of samples is representative of wastes disposed for each waste generator?

____ was the mean and the variability (standard deviation) listed for each category and waste type disposed?

____ were the 90% confidence levels calculated for each category and type of waste disposed?

____ if the quantity data were modified in order to account for a category or type overlooked in the random sampling, were calculations and a thorough discussion included to explain how and why the data were modified?

Materials Flow Methodology

If Materials Flow was used to determine any portion of the quantity of wastes disposed, then:

____ was it based on the quantity of wastes generated as a result of sales of those commodities?

____ was discussion provided on, and adjustments made for, import and export of the commodities, commodity lifetime, and any other variables pertinent to waste

disposal?

Jurisdiction-Specific Data or Phone and/or Mail Surveys

1. If JS Data was used to determine any portion of the quantity of wastes disposed, then:

____ was the information from existing published data and were these source(s) fully referenced?

2. If a Phone or Mail Survey was used to determine any portion of the quantity of wastes disposed, then:

____ was a random sampling method (or another unbiased sampling procedure) used to select the units to be sampled for each population?

____ was a description of the sampling method used included with the study?

____ were all calculations shown and discussion provided explaining how the number of units to be surveyed was determined?

____ was the survey form or questionnaire used included with the report?

____ was the number of people (or businesses) surveyed, the number of people (or businesses) that responded, and the survey procedure stated?

Comparable Jurisdictions Data or Pre-Existing Studies

If a Comparable Jurisdiction's data or a Pre-Existing Study's data was used to determine any portion of the quantity of wastes disposed, then:

____ was comparability fully demonstrated as required in Section 18724 (c) (demographic, economic, and solid waste characteristics)? (See Attachment 1 for some suggested comparisons.)

____ were the data only used for the composition of disposed wastes, not for the quantity of diverted wastes?

____ if in-state data were used, was the study that was used fully referenced?

____ if out-of-state data were used, was the solid waste statutory and regulatory scheme of the state from which the data was derived submitted with the data?

____ if out-of-state data was used, was a complete copy of the out-of-state waste generation study and composition data submitted with the SRRE?

____ were all characteristics identified as similar between the two jurisdictions that are <u>relative to the study</u> listed and described in the report?

Regionally Aggregate Data 18722 (b) and 18724 (g)

For any aggregate data collected to determine the amount of wastes disposed, then:

____ was the data separated on a proportional basis relative to the applicable demographic, economic, and industrial, residential, and commercial characteristics of each jurisdiction that participated in the regional or joint study?

____ were calculations and a thorough discussion provided that describes how the proportional distributions of

wastes disposed were determined?

____ do the data for waste disposed in the region represent only waste generated within that region, and not wastes generated in the surrounding areas that are disposed within the region in question?

Mixed Loads 18722 (f)

____ 1. If loads sampled were from more than one source of generation, or from more than one jurisdiction, was the quantity of waste from each source of generation or from each jurisdiction estimated?

____ 2. Was the estimate proportionately based on the number of residential, commercial, or industrial routes sampled, or on the weight or volume of the contents of each refuse container collected?

____ 3. Was an explanation provided on how the wastes were separated?

____ 4. Were all calculations explained?

Terminology 18722 (g)(2)

____ 1. Was the term <u>disposed</u> used to describe the total quantity of solid waste disposed and/or transformed in permitted solid waste facilities?

Representative Sampling 187722 (h)

____ 1. Was a thorough discussion provided as to how the sampling performed to in order to determine the quantity of solid waste disposed was representative?

Identifying Sources, Categories and Types 18722 (i) and 18722 (j)

____ 1. Were all permitted transformation and disposal facilities used by and/or within the jurisdiction, identified in the study?

____ 2. Were the percentages and total weights of all solid wastes disposed identified by the categories and types listed in Section 18722(j)? (See Table 4 for suggested presentation.)

Seasonal Variations 18722 i)(2)

____ 1. For the 6-month period identified by the jurisdiction, was waste sampled during each season within that 6-month period to determine the amount of wastes disposed?

____ 2. Was the sampling frequency sufficient to provide a representative characterization of wastes disposed?

____ 3. Was a discussion of the seasonal waste stream variation provided, (e.g. landfill disposal recor by month, etc.),?

____ 4. Was discussion provided on how the sampling data was used to estimate the other 6 months of data?

____ 5. Were any assumptions about the presence or lack of

seasons, or the lack of significant impact of seasonal waste variations on the wastes disposed, supported by numerical data?

Sampling Period 18722 (i)(1) and 18722 (e)

____ 1. Does the study demonstrate the composition of wastes disposed during a continuous 12-month period?

____ 2. Does the study demonstrate the quantity of wastes disposed during a continuous 12-month period?

Accuracy of Data (calculations, assumptions) 18722 (o)

____ 1. Was justification provided for all assumptions made about the quantity of wastes disposed?

____ 2. Were calculations and conversion factors shown for all numbers derived in the report?

____ 3. Was a system of reporting procedures, developed to quantify data on wastes disposed reported from local governments, solid waste facility operators, haulers, recycling facilities, etc., described in the study?

Quantity Diverted

PAGE(S)

Projections 18722 (c)

____ 1. Was a 15-year projection of the quantity of wastes diverted under current conditions included?

____ 2. Was a 15-year projection of the quantity of wastes diverted under conditions set forth by the SRRE included?

____ 3. Were each of the projections listed on a year-by-year basis? (See Tables 1 and 2 for suggested presentation.)

____ 4. Were the information sources used to determine and project changes in waste generators taken from the list in Section 18722 (c)(1)?

Information Sources

____ 1. Were all information sources used to determine quantities of wastes diverted fully referenced?

Conversion Factors 18722 (f)(1)

____ 1. Were all conversion factors related to diversion provided for all calculations that use them?

____ 2. Was each conversion factor fully referenced (including author, title, publisher, page number, and year published)?

____ 3. If the conversion factor(s) was derived from test measurements developed by the jurisdiction, was an explanation included of how the test measurements were developed?

Units of Measurement 18722 (f)(3)

____ 1. Was the quantity of wastes diverted reported in weight?

SAMPLING METHODS 18722 (1)(1-4) and 18724 (b)

____ 1. Were one or more of the following sampling methods used to determine the quantity of wastes diverted: Quantitative Field Analysis (QFA), Materials Flow Methodology (MF), Jurisdiction-Specific Data (JSD), Existing Data from Comparable Jurisdictions(CJ), Data from Regional/Joint Generation Studies, or Pre-Existing Studies? (See Table 7 for suggested presentation.)

Quantitative Field Analysis

1. If QFA was used to determine any portion of the quantity of wastes diverted, then:

____ was a description of how the data were collected from the diversion facilities provided in the report?

____ were all facilities and programs which recycle, compost, or source reduce solid wastes, and are counted towards the diversion goals, identified in the report? ((18722 (i))

____ was the population stratified before determining the number of samples to be taken?
____ if the populations were not stratified, were the reasons for not stratifying provided in the report?
____ was a random sampling method (or another unbiased sampling procedure) used to select the units to be sampled from each population?
____ were the sampling methods used described in the study?
____ were all calculations shown and discussion provided explaining how the number of samples to be taken was determined?
____ were 90% confidence levels calculated for each of the categories and types of waste diverted?
____ was the mean and the variability (standard deviation) listed for each category and waste type counted as diverted?
____ if the data were modified in order to account for a category or type overlooked in the random sampling, were calculations and thorough discussion included to explain how and why the data were modified?

Materials Flow (MF)

If MF was used to determine the quantity of wastes diverted:

____ was it based on the quantity of wastes generated as a result of sales of those commodities?
____ was discussion provided on, and adjustments made for, import and export of the commodities, commodity lifetime, and any other variables pertinent to waste generation?

Jurisdiction-Specific Data (JS), Phone or Mail Surveys

1. If JS data was used to determine any portion of the quantity of wastes diverted, then:

____ was the information from existing published data and were these source(s) fully referenced?

2. If a Phone or Mail Survey was used to determine any portion of the quantity of wastes diverted, then:

____ was a random sampling method (or another unbiased sampling procedure) used to select the units to be sampled from each population?
____ was a description of the sampling method used included with the study?
____ were all calculations shown and discussion provided explaining how the number of units to be surveyed was determined?
____ was the survey form or questionnaire used included with the report?
____ were the number of people (or businesses) surveyed, the number of people (or businesses) that responded, and the survey procedure stated?

Comparable Jurisdictions Data or Pre-Existing Studies

1. If a Comparable Jurisdiction's data or a Pre-Existing Study's data was used to determine any portion

of diverted wastes, then:

____ was comparability fully demonstrated as required in Section 18724(c) (demographic, economic, and solid waste characteristics)? (See Attachment 1 for some suggested comparisons.)

____ were the data only used for the composition of diverted wastes, not for the quantity of diverted wastes?

____ if in-state data were used, was the study that was used fully referenced?

____ if out-of-state data were used, was the solid waste statutory and regulatory scheme of the state from which the data was derived submitted with the data?

____ if out-of-state data were used, was a complete copy of the out-of-state waste generation study and composition data submitted with the SRRE?

____ were all characteristics identified as similar between the two jurisdictions that are relative to the study listed and described in the report?

Regionally Aggregated Data 18722 (b) and 18724 (g)

1. For any aggregate data collected to determine the amount of the waste diverted:

____ was the data separated on a proportional basis relative to the applicable demographic, economic, and industrial, residential, and commercial characteristics of each jurisdiction that participated in the regional or joint study?

____ was a discussion provided on how the proportional distributions of waste diverted were determined?

____ were only the data related to the quantities of solid waste generated within and diverted by the region presented in the report, and not data on quantities of solid waste generated from and diverted for other regions?

Mixed Loads 18722 (f)

____ 1. If loads sampled were from more than one diversion source, or from more than one jurisdiction, was the quantity of waste from each diversion source, or from each jurisdiction, estimated?

____ 2. Was the estimate proportionately based on the number of residential, commercial, or industrial routes sampled?

____ 3. Was an explanation provided on how the wastes were separated?

____ 4. Were all calculations explained?

Terminology 18722 (g)(2)

____ 1. Was the term diverted used to describe the total quantity of solid waste diverted (from permitted solid waste transformation and disposal facilities) through existing diversion programs?

Representative Sampling 187722 (h)

____ 1. Was a thorough discussion provided as to how the sampling performed in order to determine the quantity of solid waste diverted, was representative?

Identifying Sources, Categories and Types 18722 (i) and 18722 (j)

____ 1. Were all solid waste diversion facilities located within or used by the jurisdiction identified in the study? (See Table 5A for suggested presentation.)

____ 2. Were the percentages and total weights of all solid wastes diverted that are to be counted towards the diversion requirements, identified by categories and types as in Section 18722(j)? (See Table 5 for suggested presentation.)

Seasonal Variations 18722 (i)(2)

____ 1. Was a discussion provided on the effect of seasonal waste stream variation on the quantity of wastes diverted?

____ 2. Were any assumptions about the presence or lack of seasonal impact on the quantity of wastes diverted supported by numerical data, (e.g., landfill diposal records by month, etc.)?

Sampling Period 18722 (i)(1)

____ 1. Does the study demonstrate the <u>composition</u> of wastes diverted during a continuous 12-month period?

____ 2. Does the study demonstrate the <u>quantity</u> of wastes diverted during a continuous 12-month period?

Normally Disposed Of 18722(m)

____ 1. Were all the wastes counted towards diversion only those solid wastes normally disposed of at permitted solid waste landfills or transformation facilities, and found to be at least .001% (by weight) of the total waste disposed within the jurisdiction?

Accuracy of Data (calculations, assumptions) 18722 (o)

____ 1. Was justification provided for any assumptions made about the quantity of wastes diverted?

____ 2. Have calculations been shown for all numbers derived in the report?

____ 3. Was a system of reporting procedures, developed to quantify data on wastes diverted reported from local governments, solid waste facility operators, haulers, recycling facilities, etc., described in the study?

Wastes Countable Towards Diversion 18724 (d)

____ 1. Were all waste types being counted towards diversion (or that planned to be counted later) identified in this initial study?

Quantity Generated

PAGE(S)

Identifying Sources, Categories and Types 18722 (i) and 18722 (j)

____ 1. Were all significant sources of solid waste generated by the jurisdiction identified in the study?

____ 2. Were the percentages and total weights of all solid wastes generated identified by the categories and types as listed in Section 18722(j)? (See Table 6 for suggested presentation.)

Projections (18722 (c))

____ 1. Is a 15-year projection of quantity of wastes generated under current conditions included?

____ 2. Is a 15-year projection of quantity of wastes generated under conditions set forth by the SRRE included?

____ 3. Were each of the projections listed on a year-by-year basis? (See Tables 1 and 2 for suggested presentation.)

____ 4. Are the information sources used to determine and project changes in source generators taken from the list in Section 18722 (c)(1)?

Information Sources 18722 (c)(1)

____ 1. Were all information sources used to determine quantities and characteristics of wastes generated fully referenced?

Conversion Factors 18722 (f)(1)

____ 1. Were conversion factors listed for all calculations that use them?

____ 2. Was each conversion factor fully referenced?

____ 3. If any conversion factors were derived from test measurements developed by the jurisdiction, was an explanation included of how the test measurements were developed?

Units of Measurement 18722 (f)(2)

____ 1. Was the quantity of wastes generated reported as weight?

Terminology (18722 (g)(2))

____ 1. Was the term <u>generated</u> used to describe the total quantity of solid waste generated within the jurisdiction based on the formula?

Generated = Disposed + Diverted

Seasonal Variations 18722 (i)(2)

____ 1. Were seasonal waste generation variations quantified in the study?

____ 2. If Quantitative Field Analysis was used for the Study, was at least one sampling period (e.g., one week) chosen for each season identified by the jurisdiction?

____ 3. Was a discussion of seasonal waste stream variation throughout the jurisdiction, and throughout the year provided?

____ 4. Were all assumptions about the presence or lack of seasons, or lack of significant impact of seasonal waste variations on the waste stream, supported by numerical data?

Marine Wastes 18722 (i)(3)

____ 1. If the jurisdiction is located in a coastal area, were all marine wastes generated in the jurisdiction quantified in the study?

Accuracy of Data (calculations, assumptions) 18722 (o)

____ 1. For any assumptions made, have all conversion factors and calculations been provided for verification?

____ 2. Have calculations and conversion factors been shown for all numbers derived in the report?

____ 3. Was a system of reporting procedures developed to quantify data on wastes generated described in the study?

"Source" Characterization

R = RESIDENTIAL
C = COMMERCIAL
I = INDUSTRIAL
O = OTHER

PAGE(S)

R	C	I	O	
				Information Sources 18722 (c)(1)
___	___	___	___	1. Were all information sources used to determine the characteristics of "source" wastes fully referenced?
				Conversion Factors 18722 (f)(1)
___	___	___	___	1. Were all conversion factors used obtained from published sources or test measurements developed by the jurisdiction?
___	___	___	___	2. Were conversion factors listed for all calculations that use them?
___	___	___	___	3. Was each conversion factor fully referenced?
___	___	___	___	4. If the conversion factor was derived from test measurements developed by the jurisdiction, was an explanation of how the test measurements were developed included in the report?
				Mixed Loads 18722 (f)
___	___	___	___	1. Was the "source" waste characterization estimated from a mixed source load, or from a mixed jurisdiction load?
___	___	___	___	2. Was discussion provided that explains how the composition of each "source" was affected by sampling from a mixed was source or multiple jurisdictions?
___	___	___	___	3. Was discussion provided for any modification of the "source" characterization data that attempts to compensate for the bias introduced from the mixed sample?
___	___	___	___	4. Was numerical data provided to support any assumptions that were made in order to better separate the characterized waste?
				SAMPLING METHODS 18722 (1)(1-4) and 18724 (b)
___	___	___	___	1. Were one or more of the following sampling methods used to determine the characteristics of "source" wastes: Quantitative Field Analysis, Materials Flow Methodology, Jurisdiction-Specific Data, Existing Data from Comparable Jurisdictions, Data from Regional/Joint Generation Studies, or Pre-Existing Studies? (See Table 3 for suggested presentation.)
				Quantitative Field Analysis (QFA) 18722 (1)(1)
				If QFA was used to characterize "source" waste, then:
___	___	___	___	Were the number of units of the "source" population and its sub-populations given?
___	___	___	___	was the population stratified before determining the number of samples to be taken?
___	___	___	___	if stratifying the population was not performed, were the reasons for not stratifying provided in the report?

R	C	I	O	
				was a random sampling method (or another unbiased sampling procedure) used to select the units to be sampled for the "source" population?
				were the type(s) of unbiased sampling methods clearly described in the study?
				if either Klee and Carruth or the ASTM method was used, were all calculations shown for how the number of samples was determined for the "source" population and its sub-populations?
				if Klee and Carruth or ASTM was used, was the precision level listed and discussed?
				if Klee and Carruth was used, was the study from which the "largest waste category" was taken, in order to determine the number of samples, cited in the report?
				if Klee and Carruth or the ASTM methods were not used, was the method used to determine the number of samples provided, as well as a description of how the number of samples is representative of the "source" wastes disposed in the jurisdiction?
				was the 90% confidence level stated for each category and type of "source" waste?
				was the mean and the variability (standard deviation) listed for each category and type of "source" waste?
				if the data were modified in order to account for a category or type overlooked in the random sampling, were calculations and a thorough discussion included to explain how and why the data were modified?
				Materials Flow Method (MF)
				If MF was used to characterize any portion of the "source" waste stream, then:
				was it based on the quantity of wastes generated as a result of sales of those commodities?
				was discussion provided on, and adjustments made for, the import and export of the commodities, commodity lifetime, and any other variables pertinent to waste generation?
				Jurisdiction-Specific Data (JS)
				If JS data were used to characterize any portion of the "source" waste stream:
				was the information from existing published data?
				were all information sources fully referenced in the report?
				Comparable Jurisdiction Data (CJ) or Pre-Existing Studies
				1. If a Comparable Jurisdiction's data or a Pre-Existing study was used to characterize any portion of the "source" waste stream, then:
				was comparability fully demonstrated as required in Section 18724(c) (similar demographic, economic, and solid waste characteristics)? (See Attachment 1.)
				were all information sources from the borrowed waste generation study fully referenced?
				were only data on composition used, not data on quantities?
				if in-state data were used, was the study that was used

R	C	I	O	
				fully referenced?
—	—	—	—	if out-of-state data were used, was the solid waste statutory and regulatory schemes of the state from which the data were derived included with the data?
—	—	—	—	if out-of-state data were used, was a complete copy of the out-of-state waste generation study and composition data submitted with the SRRE?
—	—	—	—	were all characteristics identified as similar between the two jurisdictions, <u>that are relative to the study</u>, listed and described in the report?
—	—	—	—	were all information sources from the borrowed jurisdiction's report fully referenced?
				Regionally Aggregate Data 18722 (b) and 18724 (g)
				1. For any aggregate data collected that was used to determine the characteristics of the disposed "source" wastes:
—	—	—	—	was the data separated on a proportional basis relative to the applicable demographic, economic, and industrial, "source", and commercial characteristics of each jurisdiction that participated in the regional or joint study?
—	—	—	—	was a discussion included on how the composition of the "source" waste was affected by the other jurisdiction's waste?
—	—	—	—	if any changes were made in the "source" characterization data to compensate for the effect of mixed data, were thorough calculations and discussion provided to explain the changes?
—	—	—	—	were only data related to the composition of "source" solid waste generated within the region presented, and not data on composition of solid waste generated within other regions?
—	—	—	—	were only data on composition used, not data on quantities?
				Representative Sampling 18722 (h)
—	—	—	—	1. Was a thorough discussion provided as to how the composition of solid waste generated within the "source" section of the jurisdiction was indeed representative of the jurisdiction?
				Categories and Types 18722 (j) and 18722 (i)
—	—	—	—	1. Was the total "source" waste disposed placed by weight and volume in categories and types as listed in Section 18722 (j)? (See Table 4.)
—	—	—	—	2. Was the total "source" waste diverted placed by weight in categories and types as listed in Section 18722 (j)? (See Table 5.)
—	—	—	—	3. Was the total "source" waste generated placed by weight in categories and types as listed in Section 18722 (j)? (See Table 6.)

C	I	O	
			Accuracy of Data (calculations, assumptions) 18722 (o)
			1. For any assumptions made about the "source" characterization:
___	___	___	___ have the assumptions been stated?
___	___	___	___ have all conversion factors and calculations been provided for verification?
___	___	___	___ have calculations been shown for all numerically derived numbers?
___	___	___	___ was a system of reporting procedures developed to characterize data on wastes generated, described in the study?

APPENDIX B

B-1: Study Methodology/CIWMB Response Letters

B-2: Waste Hauler Survey Form

B-3: SIC Codes

B-4: Waste Sorting Plan

B-5: Waste Sampling Results/Data Sheets

B-6: Existing Comparable Data

B-7: Analysis of Variance Formulas

B-8: Puente Hills Recycle, Survey Results
United Pacific Corporation, Survey Results

B-9: Household Source Reduction and Recycling Survey Form

B-10: Household Survey Statistical Calculations

B-11: Conversion Factors for Waste Types

B-12: Letter from the Los Angeles County Integrated Waste Management Task Force to the California Integrated Waste Management Board dated March 28, 1991

JT:jt
CS1/APPEND

APPENDIX B-1

STUDY METHODOLOGY/CIWMB RESPONSE LETTERS

Clements Engineers, Inc.

ENVIRONMENTAL ENGINEERING

via FAX:

February 11, 1991

Ms. Yasmin Satter
California Integrated Waste Management Board
1020 Ninth Street Suite 300
Sacramento, California 95814

Re: Southeast Area Cities, Los Angeles County

Dear Yasmin:

Following are the residential and commercial groupings of the cities in the Southeast Area Integrated Waste Management Working Group that we plan to use for our Waste Characterization Study. These groupings were based on comparisons of the characteristics of the residential and commercial sectors of each city, as described in our methodology.

I am also forwarding a schedule for the verification sampling that we plan to conduct for each grouping. Our sampling will take place at the Paramount Resource Recycling Facility in the City of Paramount. The loads to be sampled will be selected at random from the routes of the haulers in the respective cities. A 200 pound sample will be liberated from each load and sorted into the 8 waste categories and 34 waste types. We will rely on a visual survey to determine the composition of the industrial loads.

If you have any comments or questions regarding or sampling plan please call me.

Sincerely,

Joseph Reisdorf

6290 Sunset Blvd., Suite 1223, Los Angeles, CA 90028 • (213) 469-4406 • FAX (213) 469-5425

SOUTHEAST AREA INTEGRATED WASTE MANAGEMENT
WORKING GROUP

WASTE GENERATION STUDY METHODOLOGY

A Waste Generation Study (WGS) will be undertaken to determine the quantity and composition of the municipal solid waste generated, disposed of, and diverted or recycled in the Southeast Area Integrated Waste Management Working Group cities. The objectives of this study will be to comply with the requirements of State laws AB 939 and AB 1820 and the planning regulations and guidelines prepared by the California Integrated Waste Management Board (CIWMB). The results of the Study will provide the basis for the Source Reduction and Recycling Elements that will be prepared for each city in the Working Group.

The general approach to the WGS will be based on the use of pre-existing solid waste composition data from jurisdictions with similar characteristics, as permitted in the CIWMB guidelines. The use of the data from other jurisdictions will be supplemented with selected field sampling to verify assumptions and provide commercial and industrial characterization data for certain groupings of cities.

Two of the cities in the Working Group (Santa Fe Springs and Signal Hill) have recently completed Waste Generation Studies for their jurisdictions. The information in these studies will be used to approximate the waste stream characterization of other cities in the Working Group with similar demographic, economic, and solid waste characteristics.

I. BACKGROUND

The Southeast Area Integrated Waste Management Working Group includes the twenty two cities and unincorporated areas in the southeastern section of Los Angeles County. This area is approximately bounded on the north by the City of Los Angeles, on the west by the Harbor Freeway, on the south by the San Diego Freeway (except the City of Signal Hill), and on the east by Orange County. The cities in the Working Group include:

Artesia	Bell	Bellflower
Bell Gardens	Cerritos	Commerce
Compton	Cudahy	Downey
Hawaiian Gardens	Huntington Park	Lakewood
La Mirada	Lynwood	Maywood
Norwalk	Paramount	Pico Rivera
Santa Fe Springs	Signal Hill	South Gate
Whittier		

The following unincorporated areas of Los Angeles County within this area are also included in the Working Group:

Rancho Dominquez	East Compton
Willowbrook	Walnut Park
Florence	City Terrace
East L.A.	

The Working Group represents a highly urbanized cluster of cities with a variety of industrial, commercial, and residential land uses. The total population (1990) of the cities is 1,054,000. With the county unincorporated areas included, the total population of the Working Group is 1,369,500 (source: City Planning Departments and the Southern California Association of Governments).

The per capita income of the cities ranges from $5,400 to $13,650 (source: Local Conditions Surveys and the California Department of Finance).

II. DEVELOPMENT OF CITY PROFILES

To provide the basis for a comparison and grouping of the cities in the Working Group and the use of waste composition data from other sources, a residential, commercial, and industrial profile of each city will be developed.

The residential profile will be composed of the following information, utilizing information from the Local Conditions Surveys, the City Planning Departments, and the California Department of Finance:

- total population
- demographic breakdown of the population
- income/household or per capita income
- average persons/household
- median home value
- land use (percent single family, multi-family, commercial, etc.)
- mix of single and multi-family units

The commercial profile will be based on the types and number of commercial businesses in the community. Using city business license information and data from the Pacific Bell Business Listing Service, the total number of businesses in each SIC category will be determined. Other sources will be used to obtain the number of employees of the businesses in these categories. The cities have identified the major employers in their cities on the Local Conditions Surveys that they completed.

An example of a typical commercial profile is as follows:

City A:

Mix of Business Types

SIC	Type	Total # of Business	% of Total Business	Business With > 25 Employees
541	Grocery Stores	8	5%	8
549	Misc. Food Stores	12	10%	12
565	Clothing Stores	15	10%	5
5812	Restaurants	20	15%	5
5813	Bars	30	20%	30
602	Banks	5	4%	3

Largest Employers

Name	# Employees
Mid City Hospital	350
Falcon Aircraft Corp.	300
City A	285
Beta Manufacturing	200

Similar sources will be used to develop the profile of the industrial sector of each city. The format and structure of the industrial profiles will resemble that of the commercial profiles.

III. GROUPING OF CITIES

Purpose of Grouping

Grouping of the cities will enable the cities in the Working Group to take advantage of the similarities in their residential, commercial, and industrial sectors to reduce the cost of the preparation of the Waste Characterization Studies. Rather than conduct separate waste characterization studies for each city, the project team will conduct a single study for each group of cities, and then apply the results to each city within the group.

Process

All cities and the unincorporated areas within the Working Group will be placed into residential, commercial, and industrial groupings according to similarities in their profiles. Three separate groupings will be made and it is possible that a city will

be matched with one group of cities according to similarities in their residential sectors, but then with another group of cities based on similarities in their commercial sectors. Following is an illustration of the groupings that may result from this process.

Residential Grouping

Group 1:	City A	Group 2:	City D	Group 3:	City F
	City B		City E		City G
	City C				City H

Commercial Grouping

Group 1:	City A	Group 2:	City B	Group 3:	City F
	City C		City E		City D
	City G		City H		

Industrial Grouping

Group 1:	City A	Group 2:	City D
	City B		City D
	City E		City H
	City F		
	City G		

The exact number of groups and the number of cities in each group will be determined by the profiles of each city.

IV. WASTE DISPOSAL STUDY

A waste generation analysis will be conducted to determine the total waste generated by the residential, commercial, and industrial sectors of each of the cities and unincorporated areas in the Working Group. Three sources will be investigated to determine this total:

Private Refuse Haulers

Detailed surveys will be mailed to all of the haulers operating in the cities in the Working Group. The surveys will request the haulers to indicate the amount of residential (single and multi-family), commercial, and industrial waste, and the amount of construction and demolition debris and "other" wwaste collected in each of the cities. The haulers will also be asked to identify their existing diversion or recycling programs and to indicate the types of collection vehicles used.

Direct Haul by Municipal Crews

The local, county, and state Public Works, Transportation, and Parks departments operating in the area will be surveyed to determine the amount of waste hauled directly to local landfills.

Private Self-Haulers

It is likely that within the Working Group there are some residents and private businesses or industries that haul their waste directly to local landfills without the involvement of one of the licensed refuse haulers. For this study, two approaches will be taken to estimate the volume of self-haul waste.

- The largest businesses and industries within the Working Group area will be surveyed to determine the extent of their self-haul activities.
- The operators of local landfills will be interviewed to determine the percentage of in-coming waste that is brought to their facilities by local residents. These percentages will be applied to each city based on the demographic make-up to develop an approximation of the residential self-haul volumes.

The data produced from the Waste Disposal Study will be in the following form:

City A: (tons/year)

Source	Residential	Commercial	Industrial
Municipal Collection	XXXX	XXXX	XXXX
Franchise Haulers	XXXX	XXXX	XXXX
Other Private Haulers	XXXX	XXXX	XXXX
City Crews	XXXX	XXXX	XXXX
Private Self-Haul	XXXX	XXXX	XXXX
Total	XX,XXX	XX,XXX	XX,XXX

V. WASTE CHARACTERIZATION STUDY

The purpose of the waste characterization portion of the WGS is to determine the approximate composition, by material type, of the residential, commercial, and industrial components of the waste stream in each city and the unincorporated areas. The composition will be described according to the eight (8) waste categories and 37 waste types defined in the CIWMB regulations.

The actual characterization methodology will rely on the use of comparative data from jurisdictions with similar characteristics and actual field sampling for verification. For the purposes of the characterization analysis, a grouping of cities will be considered as a single city. However, individual waste characterization reports will be prepared for each city and a single report for the unincorporated areas.

Residential Waste Characterization:

It is anticipated that very little field sampling will be required to determine the composition of the residential waste streams. Existing characterization data from other jurisdictions with similar single family and multi-family populations will be used to develop an approximation for each residential grouping. To the extent possible, separate data for the single family and multi-family populations will be used.

Sampling of residential loads will be undertaken if no comparative data for a specific residential grouping can be found. The exact number of loads will be determined after the groupings have been completed and the available comparative data assembled. Routes within the target groupings will be selected and diverted to the sampling yard. Samples of approximately 200 lbs. each will be selected from the loads and sorted into the 37 waste types.

Commercial and Industrial Waste Characterization:

Each city grouping will be considered as a single city. Comparative data from cities with similar commercial profiles will be used to approximate the characteristics of the commercial waste stream for each city grouping. Composition data from the cities of Santa Fe Springs and Signal Hill will be used to represent the characterization of the commercial waste streams of the city groupings in which two these cities are included.

To validate the use of the comparative data, actual field sampling of select commercial loads will be conducted. The exact number of loads to be sampled will be determined after the city groupings are

completed and the applicable representative data assembled. Based on information obtained from the haulers, specific routes to be sampled will be identified and directed to the sampling location. Samples of approximately 200 lbs. each will be selected from each load and sorted into the 37 waste types. The total weight of the sample and the weights of the individual components will be recorded.

Source Sampling

A limited amount of source sampling will be conducted to obtain more detailed information on the waste characterization of up to ten of the major generators in the groupings. The contents of the waste bins of the selected generators will be sampled either at the generator's location or the sampling yard. Data from source sampling will be supplemented with information in the trade literature or from trade organizations to obtain the waste generator profiles of the desired generators.

A similar method will be used to determine the waste characterization of the industrial sectors of each grouping.

Waste Sampling Location

The field sampling of selected loads will be conducted at the Paramount Resource Recycling Facility in the City of Paramount.

VI. WASTE DIVERSION STUDY

Existing Recycling:

The waste diversion portion of the WGS will identify the types and volumes of waste currently being diverted from local waste disposal and transformation facilities. The techniques that will be employed to develop this information are as follows:

- Obtain information by conducting telephone and mail surveys of all:

  commercial recyclers
  certified redemption centers
  concrete and asphalt crushers
  groceries and major retailers
  wood & green waste processors
  schools & colleges
  charities and non-profit groups
  transfer stations
  scrap metal dealers
  paper brokers and packers
  newspaper publishers
  tire recyclers
  waste haulers

  municipal parks, street maintenance, solid waste and/or recycling departments

The sources of information will be assured of the confidentiality of their information.

- Data will be obtained for the most recently available six month period (May to October 1990), or typical monthly data if that is all that is available, and projected for the same 12-month period as for the waste disposal characterization study.

- Allocation of diversion tonnages to Cities and unincorporated areas and cross-checking of data to eliminate double counting.

Source Reduction Activities:

- Identification of potential source reduction activities that should be sampled (diaper services, appliance repair businesses, etc.)

- Telephone survey of commercial businesses involved in source reduction. The number of samples and survey methodology will be calculated so that the results will be representative of the total population.

- Telephone survey of residences to determine the extent of source reduction activities, such as repair rather than replacement of appliances, use of commercial diaper services, and use of slow growing, native yard vegetation.

- Allocation of diversion tonnages to the cities and unincorporated areas and cross-checking of data to eliminate double counting.

The results of the Waste Diversion Study will be in the following form:

City A:

Type of Material	Residential	Commercial	Industrial
Corrugated	XXX	XXX	XXX
Newspaper	XXX	XXX	
Aluminum Cans	XXX	XXX	
Ca Redemption Glass	XXX	XXX	
Other Glass	XXX	XXX	
Metals		XXX	XXX
.			
.			
.			
Totals	XX,XXX	XX,XXX	XX,XXX

Type of Program	Tons Diverted
City Curbside	XXX
Office Paper Recycling	XXX
Transfer Station	XXX
Commercial Recyclers	XXX
Redemption Centers	XXX
Tire Recyclers	XXX
Wood Processors	
.	
.	
.	
Total	XX,XXX

VII. SEASONAL VARIATIONS

Waste haulers are being requested to provide both monthly and annual totals of the waste collected in the cities. The haulers will also identify any seasonal variations in the waste generation patterns of the cities. The reasons for the variations will also be listed (e.g. weather, tourism, business cycles).

VIII. 15 YEAR PROJECTIONS

Projections of the changes in current waste disposal, diversion, and generation will be made for the period 1992 to 2010. The projections will be based on population growth projections prepared by the cities and supplemented with data from the Southern California Association of Governments. The local chambers of commerce will be surveyed for information on trends in commercial and industrial activity.

IX. REPORTS

Separate Waste Characterization Components will be prepared for each city in the Working Group, with the exception of Santa Fe Springs and Signal Hill. These components will summarize the actual waste disposal and diversion data collected for each city and will include the waste characterization profile developed during the Waste Characterization Study.

The waste generation of each city will be determined by adding the waste disposal and diversion data. The composition of the waste generated will be determined by multiplying the waste generated by the percentages of each component of the waste stream. An example of the type of waste generation profile that will be produced is as follows:

City A:

Total Waste Generation: XX,XXX tons/year

Residential Waste Generation: XX,XXX tons/year

Composition of Residential Waste Generation:

Component	Percent in Waste Stream	Total Generated
Paper		
Corrugated	5%	XXX
Mixed Paper	10%	XXX
Newspaper	8%	XXX
High Grade	2%	XXX
Other	4%	XXX
Plastics		
HDPE	1%	XXX
PET	1%	XXX
Film	1%	XXX
Other		

A similar table will be prepared for the commercial and industrial components of the waste stream, as well as for the total waste stream.

January 16, 1991

STATE OF CALIFORNIA
Pete Wilson, Governor
CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD
1020 Ninth Street, Suite 300
Sacramento, California 95814

February 7, 1991

Mr. Joseph Reisdorf
Clements Engineers, Inc.
6290 Sunset Blvd, Suite 1223
Los Angeles, CA 90028

Re: Waste Generation Study Methodology For Southeast Area

Dear Mr. Reisdorr:

The California Integrated Waste Management Board (Board) staff has reviewed the waste characterization study for cities in the Southeast area and the unincorporated areas of Los Angeles County within this area.

The waste characterization study appears to comply with the requirements of the Proposed Final Regulations (Article 6.1) as presented to the Board on December 5, 1990, for solid waste generation studies (SWGS). However, the following concerns/comments need to be addressed:

1. Page 1. Please include a copy of the pre-existing comparable data you will be using when submitting your waste generation study draft.

2. Page 2. Upon Mr. Northrop's request, a list of the types of information that show comparability between jurisdictions, or that can serve as a basis for disaggregating data from joint studies, was faxed on January 22, 1991. Please add these information types to your list. Also, please explain what is meant by "other sources" in the phrase: "other sources will be used to obtain the number of employees".

3. Page 7. " The field sampling of "selected" loads will be conducted ...."- Does this mean that loads will not be selected at random? Representative sampling <u>is</u> acceptable for initial solid waste generation studies. However, subsequent waste generation studies need to be statistically representative, so the loads sampled must be randomly selected.

4. Page 7. To appropriately allocate the diversion data, please use the same information as we suggested for comparability, and for disaggregating data. We have included another copy of these information types for your convenience.

Thank you for the opportunity to review your waste generation study methodology. If you have any questions, please call Yasmin Satter at (916) 323-5361.

Sincerely,

John D. Smith, Chief
Local Planning Division

cc: Yasmin Satter
WGA Branch File

APPENDIX B-2

WASTE HAULER SURVEY FORM

SOUTH EAST AREA AB 939 WORKING GROUP
WASTE HAULER SURVEY

Complete this survey for the City of: _____

Completed by: _____ Company: _____

Address: _____

Phone: _____

When completed, please return this survey by January, 7, 1991, to:

Tim Northrop
Clements Engineers, Inc.
6290 Sunset Blvd, Ste 1223, Los Angeles, CA 90028.

This information will be kept CONFIDENTIAL.

PART ONE - COLLECTION AND DISPOSAL

A. What collection and disposal services do you provide for this city? Place a check next to appropriate services listed below.

_____ Waste Collection
_____ Waste Transfer
_____ Waste Disposal
_____ Street Sweeping

B. Where do you dispose of the waste you collect?

Facility	% of Total Waste You Collect in this City Disposed at Facility
Transfer Station (Facility Name) _____	_____ %
Landfill (Landfill Name) 1. _____	_____ %
2. _____	_____ %
3. _____	_____ %
Other type of facility (Facility Name) _____	_____ %
	100%

C. 1. Waste that you collect for the purposes of this survey should be identified by the sources listed in **bold** below.

Column One: Write in number of accounts for each source in this city

Column Two: Write in average number of tons you collect per month for each source in this city

Column Three: Write in the total tons handled in last 12 months for each source in this city

# of Accts	Average Tons per Month	Total Tons last 12 Months	
_____	_____	_____	**Residential** (single-family homes, apartments, condominiums, other residential units)
_____	_____	_____	**Commercial** (stores, offices, warehouses, educational, health care, correctional facilities, schools, hospitals, government offices, etc.)
_____	_____	_____	**Industrial** (mechanized manufacturing facilities, factories, refineries, and publicly-operated treatment works)
_____	_____	_____	**Marine** (marine vessels and ocean work platforms, waste washed onto beaches, and litter discarded on beaches)
_____	_____	_____	**Construction/Demolition** (building materials; and rubble and packaging resulting from construction, remodeling, repair, and demolition of pavements, houses, commercial buildings, and other structures.
_____	_____	_____	**Other Sources** (specify)_____ _____

2. On the following page, more detailed information is requested regarding the type of equipment used to service your accounts, and a **month-by-month** breakdown of the tonnage picked up by each type of equipment. Please complete this section if data is available.

3. **Seasonal variations.** Does the quantity of waste increase or decrease during particular times of the year due to the factors listed below?

	Change Occurs During What Months?	Percent Change (+,-)	Reason
Climate			
Tourists			
Trade/Commerce			

PART TWO - RECYCLING AND COMPOSTING

A. What recycling and composting services do you provide for this city? Place a check next to appropriate services listed below. If none, so indicate and do not continue with the survey.

_____ Curbside Recycling
_____ Composting
_____ Buy-Back Recycling Center
_____ Separate Green Waste Collection
_____ Industrial (Roll-Off Account) Recycling
_____ Commercial Account Recycling
_____ Recyclable Material Processing
_____ None

APPENDIX B-3

SIC CODES

INDUSTRIAL SIC CODES

MINING

CODE	SHORT TITLE
10	Metal Mining
11	Anthracite Mining
12	Bituminous Coal & Lignite Mining
13	Oil & Gas Extraction
14	Nonmetallic Minerals, Except Fuels

CONSTRUCTION

CODE	SHORT TITLE
15	General Building Contractors
16	Heavy Construction Contractors
17	Special Trade Contractors

MANUFACTURING

CODE	SHORT TITLE
20	Food & Kindred Products
21	Tobacco Manufactures
22	Textile Mill Products
23	Apparel & Other Textile Products
24	Lumber & Wood Products
25	Furniture & Fixtures
26	Paper & Allied Products
27	Printing & Publishing
28	Chemicals & Allied Products
29	Petroleum & Coal Products
30	Rubber & Misc. Plastics Products
31	Leather & Leather Products
32	Stone, Clay, & Glass Products
33	Primary Metal Industries
34	Fabricated Metal Products
35	Machinery, Except Electrical
36	Electric & Electronic Equipment
37	Transportation Equipment
38	Instruments & Related Products
39	Miscellaneous Manufacturing Industries

TRANSPORTATION & PUBLIC UTILITIES

CODE	SHORT TITLE
40	Railroad Transportation
41	Local & Interurban Passenger Transit

42 Trucking & Warehousing
43 U. S. Postal Service
44 Water Transportation
45 Transportation By Air
46 Pipe Lines, Except Natural Gas
47 Transportation Services
48 Communication
49 Electric, Gas, & Sanitary Services

COMMERCIAL SIC CODES

WHOLESALE TRADE

CODE	SHORT TITLE
52	Building Materials & Garden Supplies
53	General Merchandise Stores
54	Food Stores
55	Automotive Dealers & Service Stations
56	Apparel & Accessory Stores
57	Furniture & Home Furnishings Stores
58	Eating & Drinking Places
59	Misc. Retail

FINANCE, INSURANCE, & REAL ESTATE

CODE	SHORT TITLE
60	Banking
61	Credit Agencies other than Banks
62	Security, Commodity Brokers & Services
63	Insurance Carriers
64	Insurance Agents, Brokers, & Service
65	Real Estate
66	Combined Real Estate, Insurance, Etc.
67	Holding & Other Investment Offices

SERVICES

CODE	SHORT TITLE
70	Hotels & Other Lodging Places
72	Personal Services
73	Business Services
75	Auto REpair, Services, & Garages
76	Misc. Repair Services
78	Motion Pictures
79	Amusement & Recreation Services
80	Health Services
81	Legal Services
82	Educational Services
83	Social Services
84	Museums, Botanical, Zoological Gardens
86	Membership Organizations
88	Private Households
89	Misc. Services

APPENDIX B-4

WASTE SORTING PLAN

COMMERCIAL GROUPS

GROUP 1

#	Type	City	Hauler	Date
13	Commercial	Bell	Metropolitan	13-Feb
14	Commercial	Bell Gardens	Metropolitan	13-Feb
26	Commercial	Bellflower	Cal San	15-Feb
30	Commercial	Compton	Western	15-Feb
31	Commercial	Compton	Western	15-Feb
35	Commercial	Lynwood	Western	19-Feb
39	Commercial	Artesia	Consolidated	19-Feb
41	Commercial	Maywood	Klintoff	20-Feb
42	Commercial	Bell	Klintoff	20-Feb

Total Group 1 Loads 9

GROUP 2

#	Type	City	Hauler	Date
8	Commercial	La Mirada	Metropolitan	12-Feb
9	Commercial	Paramount	Metropolitan	12-Feb
23	Commercial	Commerce	Metropolitan	15-Feb
24	Commercial	Pico Rivera	Metropolitan	15-Feb
32	Commercial	Pico Rivera	Metropolitan	19-Feb
33	Commercial	Commerce	Metropolitan	19-Feb

Total Group 2 Loads 6

GROUP 3

#	Type	City	Hauler	Date
25	Commercial	Downey	Metropolitan	15-Feb
27	Commercial	Whittier	Consolidated	15-Feb
28	Commercial	Cerritos	Cal San	15-Feb
29	Commercial	Norwalk	Consolidated	15-Feb
34	Commercial	Cerritos	Cal San	19-Feb
36	Commercial	Downey	Metropolitan	19-Feb
40	Commercial	Whittier	Consolidated	19-Feb

Total Group 3 Loads 7

Total Commercial Loads 22

SOUTHEAST AREA CITIES - Sorting Plan

RESIDENTIAL LOADS

Group 1

#	Type	City	Hauler	Date
1	Multi-Family	Commerce	Metropolitan	08-Feb
10	Multi-Family	Bell	Consolidated	12-Feb
12	Multi-Family	Bell	Consolidated	12-Feb
6	Single Family	Commerce	Metropolitan	12-Feb
11	Single Family	Maywood	Consolidated	12-Feb
17	Single Family	Huntington Park	Western	13-Feb
18	Single Family	Cudahy	Consolidated	13-Feb

Total Group 1 Loads 7

GROUP 2

#	Type	City	Hauler	Date
2	Multi-Family	Pico Rivera	Metropolitan	08-Feb
3	Multi-Family	Paramount	Metropolitan	08-Feb
5	Single Family	Pico Rivera	Metropolitan	12-Feb
7	Single Family	Paramount	Metropolitan	12-Feb
22	Single Family	Artesia	Consolidated	13-Feb

Total Group 2 Loads 5

GROUP 3

#	Type	City	Hauler	Date
4	Multi-Family	La Mirada	Metropolitan	08-Feb
38	Single Family	Cerritos	Cal San	19-Feb
20	Single Family	Whittier - City	Consolidated	13-Feb
19	Single Family	Whittier - Cnty	Consolidated	13-Feb
16	Single Family	Downey	Cal San	13-Feb
15	Single Family	Cerritos	Cal San	13-Feb
21	Single Family	La Mirada	Consolidated	13-Feb
37	Single Family	Lakewood	B.Z. Disposal	19-Feb

Total Group 3 Loads 8

Total Residential Loads 20

APPENDIX B-5

WASTE SAMPLING RESULTS/DATA SHEETS

	Group C3									
Sample #	25	27	28	29	34	36	40			
Date	15-Feb	15-Feb	15-Feb	15-Feb	19-Feb	19-Feb	19-Feb			
City	Downy	Whitt	Cerritos	Norwalk	Cerritos	Downey	Whitt	Group	% of	% of
Type	Commercl	Commercl	Commercl	Commercl	Commercl	Commercl	Commercl	Total	Group	Total
Paper										
Newsprint	15.0	37.0	0	23.2	1.2	12.4	22.8	111.6	19.2%	5.9%
Corrugated	30.2	24.6	35.0	53.4	34.7	47.8	27.8	253.5	43.5%	13.3%
High Grade	13.6	0.0	3.2	0.0	0.5	21.8	15.0	54.1	9.3%	2.8%
Mixed	14.8	17.0	8.6	9.5	38.4	30.8	8.6	127.7	21.9%	6.7%
Contaminated	10.8	9.2	6.5	8.9	0.0	0.0	0.0	35.4	6.1%	1.9%
									100.0%	30.6%
Plastics										
Containers	2.9	0.9	0.0	0.0	0.0	0.0	0.0	3.8	2.7%	0.2%
PET	0.1	0.5	0.0	0.5	0.0	0.0	0.0	1.1	0.8%	0.1%
HDPE	0.7	1.8	0.1	2.4	0.0	0.0	0.0	5.0	3.6%	0.3%
Film	10.4	5.2	2.2	4.4	9.6	7.0	7.6	46.4	33.1%	2.4%
Poylstyrene	9.2	1.6	5.0	3.4	0.1	1.0	1.0	21.3	15.2%	1.1%
Other	1.0	4.8	5.8	40.0	4.6	6.3	0.0	62.5	44.6%	3.3%
									100.0%	7.4%
Glass										
CA Redemption	4.5	4.0	0.4	0.5	0.6	0.0	0.0	10.0	47.6%	0.5%
Containers	1.5	4.2	0.5	3.7	0.0	0.0	0.0	9.9	47.1%	0.5%
Other	1.1	0.0	0.0	0.0	0.0	0.0	0.0	1.1	5.2%	0.1%
									100.0%	1.1%
Metals										
Al Cans	0.3	0.3	0.1	2.9	0.2	0.4	0.0	4.2	2.5%	0.2%
Tin Cans	1.1	6.6	1.4	2.2	0.2	0.0	0.0	11.5	6.9%	0.6%
Ferrous	2.7	0.0	1.0	2.9	4.6	0.1	15.8	27.1	16.3%	1.4%
Nonferrous	3.9	0.9	0.0	0.2	4.4	0.2	0.0	9.6	5.8%	0.5%
White Goods	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%
Mixed Metals	3.3	33.7	7.0	0.0	39.0	2.2	28.2	113.4	68.4%	6.0%
									100.0%	8.7%
Yard Waste										
Grass/Leaves	0.0	35.4	0.4	0.0	0.0	0.0	0.0	35.8	25.2%	1.9%
Prunings	23.4	0.0	0.0	16.9	0.3	0.0	65.8	106.4	74.8%	5.6%
									100.0%	7.5%
Organic										
Food	130.0	18.8	145.0	55.8	0.5	6.6	0.0	356.7	50.4%	18.7%
Wood	15.2	34.6	11.2	15.0	40.3	4.8	14.4	135.5	19.2%	7.1%
Tires	0.0	0.0	0.0	23.8	0.0	46.8	0.0	70.6	10.0%	3.7%
Manure	0.0	0.0	0.0	0.0	0.0	0.0	4.6	4.6	0.7%	0.2%
Diapers	5.5	9.2	0.0	0.3	0.0	0.0	0.4	15.4	2.2%	0.8%
Textiles	21.1	23.0	0.2	11.9	40.5	0.0	7.2	103.9	14.7%	5.5%
Other	12.9	7.8	0.0	0.0	0.0	0.0	0.0	20.7	2.9%	1.1%
									100.0%	37.2%
Other Wastes										
Asphalt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%
Concrete	0.0	0.0	0.0	0.0	0.0	19.4	0.0	19.4	13.4%	1.0%
Inert Solids	0.0	0.6	0.0	81.8	32.6	0.0	10.2	125.2	86.3%	6.6%
HHW	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.3%	0.0%
Fines	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%
Misc.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%
									100.0%	7.6%
Special Wastes										
Asbe s	0.0	0.0	0.0	0.0	0.0	.0	0.0	0.0	0.0%	0.0%
Bulk, ems	0.0	0.0	0.0	0.0	0.0	.0	0.0	0.0	0.0%	0.0%

Group C1

Sample #	13	14	26	30	31	35	39	41	42			
Date	13-Feb	13-Feb	15-Feb	15-Feb	15-Feb	19-Feb	19-Feb	20-Feb	20-Feb			
City	Bell	BellGdns	Bellfwr	Comptn	Comptn	Lynwd	Artesia	Maywd	Bell	Group	% of	% of
Type	Commercl	Commercl	Commercl	Commercl	Commercl	Commercl	Commercl	Commercl	Commercl	Total	Group	Category
Paper												
Newsprint	0.0	12.8	1.8	0.0	16.8	4.2	5.9	6.2	0.2	47.9	1.9%	6.2%
Corrugated	9.2	44.4	64.4	76.6	15.8	49.4	87.8	37.6	23.4	408.6	16.1%	52.6%
High Grade	32.8	0.0	3.6	3.8	22.2	0.0	0.0	15.6	0.4	78.4	3.1%	10.1%
Mixed	20.4	26.4	44.4	12.2	34.8	12.0	12.0	7.8	14.4	184.4	7.3%	23.7%
Contaminated	0.0	0.0	6.8	11.6	20.0	19.4	0.0	0.0	0.0	57.8	2.3%	7.4%
											30.7%	100.0%
Plastics												
Containers	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.7	0.0%	0.2%
PET	0.0	0.0	0.0	0.0	0.1	0.4	0.2	0.0	0.0	0.7	0.0%	0.2%
HDPE	0.0	0.7	0.4	2.0	2.4	4.9	1.2	0.6	0.5	12.7	0.5%	4.5%
Film	11.4	6.6	10.4	31.8	13.0	7.6	7.4	20.8	53.0	162.0	6.4%	57.6%
Poylstyrene	3.2	0.7	1.6	3.4	7.8	2.5	0.8	1.6	0.4	22.0	0.9%	7.8%
Other	5.1	10.3	1.7	35.2	5.4	5.4	10.6	2.2	7.4	83.3	3.3%	29.6%
											11.1%	100.0%
Glass												
CA Redemption	3.1	2.1	0.0	0.0	3.3	1.6	0.0	0.8	0.0	10.9	0.4%	16.8%
Containers	1.1	1.3	0.4	0.0	0.0	5.8	0.0	0.0	0.4	9.0	0.4%	13.9%
Other	0.0	0.0	0.0	0.0	0.0	4.8	40.0	0.0	0.0	44.8	1.8%	69.2%
											2.6%	100.0%
Metals												
Al Cans	0.3	0.3	0.0	0.5	0.0	0.2	0.0	0.4	0.0	1.7	0.1%	0.9%
Tin Cans	0.5	0.7	0.0	1.4	41.5	3.7	1.9	0.2	0.2	50.1	2.0%	27.3%
Ferrous	0.7	0.1	55.0	0.0	0.0	6.2	3.4	4.8	0.6	70.8	2.8%	38.5%
Nonferrous	0.0	0.3	0.8	1.3	0.5	0.2	0.1	0.0	0.0	3.2	0.1%	1.7%
White Goods	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%
Mixed Metals	2.9	0.0	0.0	40.0	11.1	3.8	0.0	0.2	0.0	58.0	2.3%	31.6%
											7.3%	100.0%
Yard Waste												
Grass/Leaves	0.0	0.0	0.0	0.0	40.8	0.0	7.0	0.0	0.0	47.8	1.9%	37.6%
Prunings	0.0	76.4	0.0	2.8	0.0	0.0	0.0	0.0	0.0	79.2	3.1%	62.4%
											5.0%	100.0%
Organic												
Food	124.8	16.9	78.8	0.0	51.0	20.2	50.6	0.0	0.0	342.3	13.5%	34.7%
Wood	10.8	7.0	15.2	43.8	4.0	32.0	49.2	35.6	113.3	310.9	12.3%	31.5%
Tires	0.0	0.0	1.7	19.6	0.0	0.4	0.0	0.5	0.0	22.2	0.9%	2.2%
Manure	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%
Diapers	1.5	0.0	2.9	0.0	10.6	3.8	0.0	1.0	0.0	19.8	0.8%	2.0%
Textiles	3.0	26.8	0.3	44.4	17.0	3.8	0.2	116.8	46.0	258.3	10.2%	26.2%
Other	0.0	10.3	2.5	0.0	0.0	19.1	1.4	0.0	0.0	33.3	1.3%	3.4%
											39.0%	100.0%
Other Wastes												
Asphalt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%
Concrete	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%
Inert Solids	0.0	0.9	0.0	0.0	2.2	20.6	56.0	2.0	5.0	86.7	3.4%	78.3%
HHW	0.0	0.0	0.0	0.0	1.1	0.0	0.4	4.4	0.0	5.9	0.2%	5.3%
Fines	0.0	0.0	0.0	0.0	0.0	15.0	1.6	1.5	0.0	18.1	0.7%	16.4%
Misc.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%
											4.4%	100.0%
Special Wastes												
Asbestc	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0%	0.0%
Bulky as	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0%	0.0%
	230.8	245.0	292.7	330.4	322.1	2	337.7	260.6	265.2	2,531.5	100.0%	

	Group R2							
Sample #	2	3	5	7	22			
Date	08-Feb	08-Feb	12-Feb	12-Feb	13-Feb	Summary		
City	Pico	Paramnt	Pico	Paramnt	Artesia	Group	% of	% of
Type	Multi	Multi	Single	Single	Single	Total	Category	Total
Paper								
Newsprint	14.5	50.0	18.5	13.0	16.4	112.4	26.1%	7.1%
Corrugated	9.0	11.5	17.0	6.8	31.6	75.9	17.6%	4.8%
High Grade	1.0	2.5	3.0	1.8	3.0	11.3	2.6%	0.7%
Mixed	22.0	45.0	72.0	29.6	11.2	179.8	41.7%	11.4%
Contaminated	7.5	8.5	0.0	11.8	24.0	51.8	12.0%	3.3%
						431.2	100.0%	27.3%
Plastics								
Containers	0.5	1.5	0.1	0.0	0.4	2.5	2.6%	0.2%
PET	1.5	0.5	0.1	1.7	1.5	5.3	5.5%	0.3%
HDPE	2.5	1.5	2.0	2.0	1.4	9.4	9.7%	0.6%
Film	8.0	8.0	9.5	5.4	9.9	40.8	42.0%	2.6%
Poylstyrene	1.5	1.0	3.0	0.9	1.6	8	8.2%	0.5%
Other	4.3	13.5	7.0	5.6	0.8	31.2	32.1%	2.0%
						97.2	100.0%	6.2%
Glass								
CA Redemption	5.0	3.5	7.5	12.9	5.5	34.4	34.0%	2.2%
Containers	9.5	18.0	7.5	21.0	5.2	61.2	60.5%	3.9%
Other	0.5	0.0	5.0	0.0	0.0	5.5	5.4%	0.3%
						101.1	100.0%	6.4%
Metals								
Al Cans	0.1	1.5	0.1	0.5	0.0	2.2	4.3%	0.1%
Tin Cans	4.0	7.0	7.0	4.9	3.1	26	50.8%	1.6%
Ferrous	1.5	2.5	0.0	0.0	0.3	4.3	8.4%	0.3%
Nonferrous	1.0	2.0	1.0	1.7	0.0	5.7	11.1%	0.4%
White Goods	0.0	0.0	0.0	0.0	0.0	0	0.0%	0.0%
Mixed Metals	0.0	0.0	0.5	0.9	11.6	13	25.4%	0.8%
						51.2	100.0%	3.2%
Yard Waste								
Grass/Leaves	1.0	0.0	180.0	0.0	28.8	209.8	59.7%	13.3%
Prunings	0.0	0.0	0.0	102.8	38.8	141.6	40.3%	9.0%
						351.4	100.0%	22.2%
Organic								
Food	58.5	23.0	36.5	112.1	17.3	247.4	58.3%	15.7%
Wood	1.0	5.0	5.5	3.4	17.2	32.1	7.6%	2.0%
Tires	0.0	3.0	0.0	1.7	0.0	4.7	1.1%	0.3%
Manure	0.0	0.0	0.0	0.0	0.0	0	0.0%	0.0%
Diapers	7.5	15.0	9.0	21.7	11.1	64.3	15.2%	4.1%
Textiles	2.0	21.0	0.0	6.4	36.9	66.3	15.6%	4.2%
Other	0.0	0.0	4.5	0.7	4.0	9.2	2.2%	0.6%
						424.0	100.0%	26.8%
Other Wastes								
Asphalt	0.0	0.0	0.0	0.0	0.0	0	0.0%	0.0%
Concrete	0.0	0.0	0.0	5.3	29.2	34.5	27.9%	2.2%
Inert Solids	70.0	0.0	0.0	7.0	9.4	86.4	70.0%	5.5%
HHW	0.0	1.5	0.0	0.0	0.1	1.6	1.3%	0.1%
Fines	1.0	0.0	0.0	0.0	0.0	1	0.8%	0.1%
Misc.	0.0	0.0	0.0	0.0	0.0	0	0.0%	0.0%
						123.5	100.0%	7.8%
Special Wastes								
Asbestos	0.0	0.0	0.0	0.0	0.0	0	0.0%	0.0%
Bulky Items	0.0	0.0	0.0	0.0	0.0	0	0.0%	0.0%
	234.9	246.5	396.3	381.6	320.3	3,159.2		100.0%

	Group C2								
Sample #	23	8	9	24	32	33			
Date	15-Feb	12-Feb	12-Feb	15-Feb	19-Feb	19-Feb			
City	Comm.	LaMirada	Paramnt	Pico	Pico	Comm.	Group	% of	% of
Type	Commercl	Commercl	Commercl	Commercl	Commercl	Commercl	Total	Group	Category
Paper									
Newsprint	11.2	2.6	6.2	5.8	18.2	18.0	62.0	3.9%	9.9%
Corrugated	45.6	54.1	54.2	101.1	34.8	35.6	325.4	20.5%	52.2%
High Grade	2.2	14.2	0.0	0.2	2.6	12.8	32.0	2.0%	5.1%
Mixed	18.9	19.0	2.6	7.6	35.6	22.8	106.5	6.7%	17.1%
Contaminated	23.8	17.0	7.6	6.6	9.5	32.8	97.3	6.1%	15.6%
								39.2%	100.0%
Plastics									
Containers	0.3	9.9	0.0	0.0	0.0	0.5	10.7	0.7%	8.3%
PET	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.0%	0.2%
HDPE	4.0	0.5	15.2	0.1	1.0	0.3	21.1	1.3%	16.5%
Film	5.4	11.0	5.1	14.6	8.6	10.6	55.3	3.5%	43.1%
Poylstyrene	5.4	0.8	0.7	0.1	7.0	12.1	26.1	1.6%	20.4%
Other	2.6	2.8	3.5	1.4	2.6	1.8	14.7	0.9%	11.5%
								8.1%	100.0%
Glass									
CA Redemption	9.9	1.9	9.7	1.0	6.1	5.8	34.4	2.2%	70.2%
Containers	4.9	0.1	3.3	2.3	3.5	0.0	14.1	0.9%	28.8%
Other	0.5	0.0	0.0	0.0	0.0	0.0	0.5	0.0%	1.0%
								3.1%	100.0%
Metals									
Al Cans	0.5	0.3	0.3	0.1	0.5	0.0	1.7	0.1%	1.9%
Tin Cans	3.6	0.2	0.7	2.6	6.0	2.2	15.3	1.0%	16.9%
Ferrous	13.3	0.6	0.0	0.0	20.8	0.0	34.7	2.2%	38.3%
Nonferrous	1.3	0.0	0.0	0.0	0.7	0.6	2.6	0.2%	2.9%
White Goods	0.0	0.0	0.0	0.0	0.0	24.3	24.3	1.5%	26.8%
Mixed Metals	1.9	0.5	8.9	0.0	0.0	0.8	12.1	0.8%	13.3%
								5.7%	100.0%
Yard Waste									
Grass/Leaves	40.6	0.0	2.8	0.0	0.0	0.0	43.4	2.7%	53.3%
Prunings	0.0	0.0	0.0	0.0	24.0	14.0	38.0	2.4%	46.7%
								5.1%	100.0%
Organic									
Food	33.5	72.1	50.0	48.6	77.8	74.2	356.2	22.4%	60.2%
Wood	23.8	47.1	17.7	74.6	11.4	0.0	174.6	11.0%	29.5%
Tires	0.7	0.0	0.0	0.0	0.0	0.0	0.7	0.0%	0.1%
Manure	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%
Diapers	8.1	0.0	0.5	0.0	0.0	1.4	10.0	0.6%	1.7%
Textiles	11.6	0.0	0.5	0.3	4.0	0.0	16.4	1.0%	2.8%
Other	24.5	0.0	0.0	0.0	0.5	8.6	33.6	2.1%	5.7%
								37.2%	100.0%
Other Wastes									
Asphalt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%
Concrete	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%
Inert Solids	0.9	0.0	0.0	0.0	25.4	0.0	26.3	1.7%	100.0%
HHW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%
Fines	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%
Misc.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%
								1.7%	100.0%
Special Wastes									
Asbestos	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%
Bulky Items	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%
	299.3	254.7	189.5	267.0	300.6	279.2	1,590.3	100.0%	

	Group R3										
Sample #	4	15	16	19	20	21	37	38	Summary		
Date	08-Feb	13-Feb	13-Feb	13-Feb	13-Feb	13-Feb	19-Feb	19-Feb	Group	% of	% of
City	LaMirada	Cerritos	Downy	Whitt-Cot	Whitt-Ct	LaMirada	Lkwd	Cerritos	Total	Category	Total
Type	Multi	Single	Single	Single	Single	Single	Single	Single			
Paper											
Newsprint	24.5	36.3	10.6	31.0	23.8	19.6	23.6	20.8	190.2	32.8%	9.9%
Corrugated	9.0	10.4	10.4	3.2	11.4	30.4	30.8	6.4	112	19.3%	5.8%
High Grade	1.0	1.6	0.6	0.8	0.6	1.3	0.2	0.8	6.9	1.2%	0.4%
Mixed	26.5	54.7	10.4	19.6	10.2	18.6	31.6	49.6	221.2	38.1%	11.5%
Contaminated	8.0	0.0	9.6	17.8	4.0	10.4	0.0	0.0	49.8	8.6%	2.6%
									580.1	100.0%	30.1%
Plastics											
Containers	1.0	0.0	0.1	0.0	2.7	1.5	0.0	1.2	6.5	5.0%	0.3%
PET	1.0	0.2	0.1	0.0	0.5	0.3	0.2	0.0	2.3	1.8%	0.1%
HDPE	2.0	2.4	1.9	1.0	1.8	1.5	1.6	0.8	13	9.9%	0.7%
Film	6.5	6.7	7.2	5.8	6.2	9.5	4.6	5.8	52.3	39.9%	2.7%
Poylstyrene	1.0	2.0	0.7	1.0	3.4	1.8	2.0	2.2	14.1	10.7%	0.7%
Other	12.5	8.9	2.4	3.8	1.2	2.6	7.2	4.4	43	32.8%	2.2%
									131.2	100.0%	6.8%
Glass											
CA Redemption	3.5	3.5	4.3	2.7	1.6	5.6	0.0	1.2	22.4	27.0%	1.2%
Containers	12.0	1.9	4.6	16.2	6.9	3.7	8.0	4.4	57.7	69.6%	3.0%
Other	2.0	0.1	0.0	0.0	0.6	0.1	0.0	0.0	2.8	3.4%	0.1%
									82.9	100.0%	4.3%
Metals											
Al Cans	1.5	0.1	0.0	0.7	1.1	2.3	0.1	0.4	6.2	6.5%	0.3%
Tin Cans	5.5	5.9	2.3	7.0	7.3	3.9	9.2	1.6	42.7	45.0%	2.2%
Ferrous	1.5	0.6	4.6	0.1	0.0	1.3	0.0	0.0	8.1	8.5%	0.4%
Nonferrous	0.5	0.1	0.7	0.0	1.3	1.3	0.2	0.1	4.2	4.4%	0.2%
White Goods	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	6	6.3%	0.3%
Mixed Metals	6.0	3.7	9.9	1.9	0.0	0.0	6.1	0.1	27.7	29.2%	1.4%
									94.9	100.0%	4.9%
Yard Waste											
Grass/Leaves	0.0	76.2	2.2	38.6	39.2	27.0	52.6	29.4	265.2	64.9%	13.7%
Prunings	0.0	0.0	54.8	22.6	20.8	0.0	0.0	45.0	143.2	35.1%	7.4%
									408.4	100.0%	21.2%
Organic											
Food	42.0	35.3	67.8	36.8	32.3	44.7	25.2	33.8	317.85	53.7%	16.5%
Wood	0.0	1.0	1.4	1.2	12.8	23.6	7.2	0.5	47.7	8.1%	2.5%
Tires	4.0	0.0	0.0	0.0	0.0	0.0	0.0	34.2	38.2	6.5%	2.0%
Manure	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	4.9	0.8%	0.3%
Diapers	13.5	16.4	6.9	4.7	3.3	14.0	17.6	8.2	84.6	14.3%	4.4%
Textiles	6.0	6.1	16.2	2.9	0.0	11.5	4.0	11.4	58.1	9.8%	3.0%
Other	0.5	6.1	0.0	8.8	5.2	9.7	10.0	0.2	40.5	6.8%	2.1%
									591.85	100.0%	30.7%
Other Wastes											
Asphalt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0%	0.0%
Concrete	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0%	0.0%
Inert Solids	16.5	0.0	13.4	2.9	2.8	1.5	0.0	0.0	37.1	90.5%	1.9%
HHW	0.0	0.4	0.0	0.0	3.5	0.0	0.0	0.0	3.9	9.5%	0.2%
Fines	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0%	0.0%
Misc.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0%	0.0%
									41	100.0%	2.1%
Special Wastes											
Asbestos	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0%	0.0%
Bulky Items	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0%	0.0%
	208.0	285.5	249.1	231.1	204.5	247.7	242.0	262.5	3,860.7		100.0%

	Group R1									
Sample #	1	6	10	11	12	17	18	Summary		
Date	08-Feb	12-Feb	12-Feb	12-Feb	12-Feb	13-Feb	13-Feb			
City	Comm.	Comm.	Bell	Maywd	Bell	HuntPk	Cudahy	Group	% of	% of
Type	Multi	Single	Multi	Single	Multi	Single	Single	Total	Category	Total
Paper										
Newsprint	20.5	26.5	15.8	8.1	2.0	38.8	5.0	116.7	27.0%	6.2%
Corrugated	26.0	6.5	9.8	9.6	14.8	6.2	2.2	75.1	17.4%	4.0%
High Grade	1.5	1.6	2.6	0.0	0.4	0.0	0.0	6.1	1.4%	0.3%
Mixed	28.5	33.0	18.0	13.0	14.4	39.0	5.6	151.5	35.0%	8.1%
Contaminated	14.5	0.0	13.6	21.1	12.2	9.8	11.8	83.0	19.2%	4.4%
									100.0%	23.0%
Plastics										
Containers	1.0	2.1	0.3	0.0	0.0	0.0	0.0	3.4	2.4%	0.2%
PET	1.0	0.1	0.0	0.3	0.7	0.2	0.5	2.8	1.9%	0.1%
HDPE	2.0	2.0	3.4	4.7	5.0	1.2	3.5	21.8	15.1%	1.2%
Film	9.3	7.4	7.6	9.7	7.2	3.6	7.2	52.0	36.0%	2.8%
Poylstyrene	0.5	3.0	0.7	2.9	3.4	1.2	2.4	14.1	9.8%	0.8%
Other	3.3	3.7	11.5	3.2	2.0	17.4	9.4	50.5	34.9%	2.7%
									100.0%	7.7%
Glass										
CA Redemption	7.0	4.6	3.9	3.6	2.5	3.9	1.9	27.4	27.9%	1.5%
Containers	10.5	13.5	4.3	10.2	3.1	19.7	2.3	63.6	64.7%	3.4%
Other	3.5	0.0	1.7	2.1	0.0	0.0	0.0	7.3	7.4%	0.4%
									100.0%	5.2%
Metals										
Al Cans	0.5	0.1	0.3	0.1	0.3	0.7	0.1	2.1	2.0%	0.1%
Tin Cans	5.0	4.0	7.0	9.5	3.6	9.0	2.2	40.3	38.5%	2.1%
Ferrous	0.0	3.2	17.9	0.0	0.0	0.0	2.1	23.2	22.2%	1.2%
Nonferrous	0.5	0.1	4.3	0.7	0.3	0.1	0.5	6.5	6.2%	0.3%
White Goods	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%
Mixed Metals	7.5	0.7	10.7	1.5	2.6	9.6	0.0	32.6	31.1%	1.7%
									100.0%	5.6%
Yard Waste										
Grass/Leaves	11.5	21.2	9.4	8.6	0.0	30.6	48.6	129.9	41.5%	6.9%
Prunings	0.0	105.0	0.0	45.8	32.4	0.0	0.0	183.2	58.5%	9.8%
									100.0%	16.7%
Organic										
Food	64.5	45.4	57.3	71.3	25.0	22.0	24.8	310.3	46.6%	16.5%
Wood	10.5	9.4	20.2	0.0	18.4	2.4	29.8	90.7	13.6%	4.8%
Tires	0.0	0.0	1.3	0.0	26.1	0.0	0.0	27.4	4.1%	1.5%
Manure	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%
Diapers	16.5	11.0	24.8	20.6	15.0	4.1	19.0	111.0	16.7%	5.9%
Textiles	10.0	5.7	9.7	4.5	56.2	4.5	15.0	105.6	15.9%	5.6%
Other	0.0	0.0	0.0	0.0	0.0	8.2	12.2	20.4	3.1%	1.1%
									100.0%	35.4%
Other Wastes										
Asphalt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%
Concrete	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%
Inert Solids	0.0	7.9	22.9	0.0	3.1	33.1	16.5	83.5	69.9%	4.4%
HHW	1.3	0.0	2.7	0.0	0.0	4.7	0.5	9.2	7.7%	0.5%
Fines	0.0	11.9	0.0	11.6	3.3	0.0	0.0	26.8	22.4%	1.4%
Misc.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%
									100.0%	6.4%
Special Wastes										
Asbestos	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%
Bulky Items	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%
	256.8	329.6	281.7	262.7	254.0	270.0	223.1	1,877.9		100.0%

APPENDIX B-6

EXISTING COMPARABLE DATA

CITY OF GLENDALE

TABLE 2-11

COMPOSITION OF RESIDENTIAL WASTE DISPOSED

Residential Routes
Data Summary/Statistical Analysis
(all values % by weight)

	Min Value	Max Value	Mean	Std Dev	90% Confidence Interval Lower	90% Confidence Interval Upper
PAPER						
Newsprint	1.0	29.3	11.8	6.8	9.5	14.2
Corrugated Containers	0.0	14.6	5.2	3.9	3.9	6.5
High-grade	0.0	4.5	0.4	1.0	0.0	0.7
Mixed	6.5	41.5	21.8	8.9	18.7	24.8
PLASTICS						
Containers	0.2	6.3	1.7	1.5	1.2	2.2
PET	0.0	5.0	0.7	1.0	0.4	1.0
Other	2.1	28.3	7.7	5.4	5.8	9.5
GLASS						
Ca. Redemption Value	0.0	6.8	2.4	1.8	1.8	3.0
Containers	0.0	10.8	2.7	3.1	1.6	3.7
Other	0.0	4.2	0.5	1.2	0.1	0.9
METALS						
Aluminum Cans	0.0	4.7	0.9	1.2	0.4	1.3
Tin cans	0.0	6.1	1.9	1.5	1.4	2.4
Ferrous	0.0	19.1	2.4	4.6	0.8	4.0
Nonferrous	0.0	1.6	0.4	0.5	0.2	0.5
White Goods	0.0	23.1	1.5	5.2	0.0	3.3
YARD WASTE						
Grass/leaves	0.0	72.7	16.3	19.8	9.6	23.1
Prunings	0.0	12.2	1.1	2.6	0.2	2.0
NON-PAPER ORGANICS						
Food	0.0	21.2	8.2	5.8	6.2	10.2
Wood	0.0	18.1	1.9	4.4	0.4	3.4
Tires and Rubber Products	0.0	7.5	0.6	1.9	0.0	1.3
Manure	0.0	0.0	0.0	0.0	0.0	0.0
Disposable Diapers	0.0	12.6	3.6	2.8	2.6	4.5
Other	0.0	12.6	2.7	3.1	1.6	3.8
OTHER WASTES						
Asphalt	0.0	0.0	0.0	0.0	0.0	0.0
Concrete	0.0	1.9	0.1	0.4	0.0	0.2
Other Inert Solids	0.0	8.6	0.5	1.7	0.0	1.1
Household Haz. Wst. Containers	0.0	3.9	0.9	1.3	0.4	1.4
Household Haz. Wst.	0.0	2.3	0.3	0.6	0.1	0.5
Fines	0.0	7.1	1.9	1.5	1.4	2.4
SPECIAL WASTES						
Asbestos	0.0	0.0	0.0	0.0	0.0	0.0
Bulky Items	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	1.3	0.1	0.3	0.0	0.1
			100			

25 samples analyzed

TABLE 7. COMMERCIAL ROUTES: DATA SUMMARY/STATISTICAL ANALYSIS (All Values % by Weight)

			Min Value	Max Value	Mean	Std Dev	90% Confidence Interval Lower	90% Confidence Interval Upper
PAPER	Total	36.5						
Newsprint			0.0	7.1	2.0	2.2	1.3	2.6
Corrugated Containers			0.0	58.0	12.2	11.8	8.7	15.8
High-grade			0.0	20.1	3.0	4.3	1.7	4.3
Mixed			0.0	50.2	12.9	11.1	9.6	16.2
Contaminated			0.0	44.6	6.4	8.7	3.8	9.0
PLASTICS	Total	15.3						
Containers			0.0	5.5	0.9	1.4	0.5	1.3
PET			0.0	1.0	0.1	0.2	0.0	0.2
HDPE			0.0	2.3	0.2	0.4	0.0	0.3
Film			0.0	32.7	5.5	6.3	3.6	7.4
Polystyrene			0.0	5.2	0.7	1.0	0.4	1.0
Other			0.0	34.3	8.0	9.7	5.1	10.9
GLASS	Total	2.7						
Ca. Redemption Value			0.0	4.1	1.1	1.2	0.8	1.5
Containers			0.0	7.7	0.7	1.9	0.1	1.2
Other			0.0	16.0	0.9	3.2	-0.1	1.9
METALS	Total	9.9						
Aluminum Cans			0.0	0.7	0.2	0.2	0.1	0.2
Tin cans			0.0	4.0	0.8	1.0	0.5	1.1
Ferrous			0.0	49.5	6.3	9.9	3.4	9.3
Nonferrous			0.0	9.9	1.5	2.3	0.8	2.2
White Goods			0.0	14.1	0.5	2.5	-0.3	1.2
Mixed metals			0.0	5.8	0.6	1.7	0.1	1.1
YARD WASTE	Total	3.8						
Grass/leaves			0.0	40.9	3.7	8.3	1.2	6.2
Prunings			0.0	2.8	0.1	0.5	-0.1	0.2
NON-PAPER ORG	Total	28.3						
Food			0.0	24.3	4.3	5.8	2.6	6.1
Wood			0.0	58.3	15.9	15.4	11.3	20.6
Tires and Rubber			0.0	17.0	1.7	4.2	0.5	3.0
Manure			0.0	0.0	0.0	0.0	0.0	0.0
Disposable Diapers			0.0	3.8	0.3	0.9	0.1	0.6
Textiles			0.0	45.0	3.6	8.8	1.0	6.3
Other			0.0	26.4	2.4	6.3	0.5	4.3
OTHER WASTES	Total	3.5						
Asphalt			0.0	0.0	0.0	0.0	0.0	0.0
Concrete			0.0	1.8	0.1	0.4	0.0	0.2
Other Inert Solids			0.0	3.7	0.2	0.7	0.0	0.4
Household Haz. Wst.			0.0	8.6	0.8	2.0	0.2	1.4
Fines			0.0	3.8	0.7	1.0	0.4	1.0
Misc.			0.0	23.5	1.7	4.4	0.4	3.0
SPECIAL WASTES	Total	0.0						
Asbestos			0.0	0.0	0.0	0.0	0.0	0.0
Bulky Items			0.0	0.0	0.0	0.0	0.0	0.0
					100.0			

30 samples analyzed

TABLE 2-12

COMPOSITION OF COMMERCIAL WASTE DISPOSED

Commercial Routes
Data Summary/Statistical Analysis
(all values % by weight)

	Min Value	Max Value	Mean	Std Dev	90% Confidence Interval Lower	90% Confidence Interval Upper
PAPER						
Newsprint	0.0	26.5	8.3	5.4	6.0	10.5
Corrugated Containers	2.2	28.7	9.9	5.5	7.5	12.2
High-grade	0.0	20.6	2.3	5.6	0.0	4.7
Mixed	5.0	70.3	24.1	14.5	18.0	30.2
PLASTICS						
Containers	0.3	13.8	2.0	3.2	0.7	3.4
PET	0.0	0.8	0.3	0.2	0.2	0.4
Other	1.3	19.3	6.8	4.1	5.1	8.5
GLASS						
Ca. Redemption Value	0.0	6.4	1.8	1.9	1.1	2.6
Containers	0.0	4.5	1.8	1.7	1.1	2.5
Other	0.0	25.7	2.7	6.9	0.0	5.6
METALS						
Aluminum Cans	0.0	1.4	0.4	0.4	0.2	0.6
Tin cans	0.0	6.6	1.4	1.5	0.8	2.1
Ferrous	0.0	11.5	2.0	3.9	0.3	3.6
Nonferrous	0.0	5.8	1.2	1.9	0.4	2.0
White Goods	0.0	0.0	0.0	0.0	0.0	0.0
YARD WASTE						
Grass/leaves	0.0	9.3	2.7	3.2	1.3	4.0
Prunings	0.0	2.5	0.3	0.8	0.0	0.7
NON-PAPER ORGANICS						
Food	0.0	61.1	11.9	15.9	5.2	18.7
Wood	0.0	18.4	3.1	5.2	0.9	5.3
Tires and Rubber Products	0.0	15.4	1.4	4.1	0.0	3.2
Manure	0.0	0.0	0.0	0.0	0.0	0.0
Disposable Diapers	0.0	8.9	2.2	2.5	1.2	3.3
Other	0.0	57.6	8.0	15.0	1.7	14.4
OTHER WASTES						
Asphalt	0.0	0.0	0.0	0.0	0.0	0.0
Concrete	0.0	5.1	0.3	1.3	0.0	0.8
Other Inert Solids	0.0	11.2	1.6	3.3	0.2	3.0
Household Haz. Wst. Containers	0.0	4.7	0.7	1.4	0.1	1.3
Household Haz. Wst.	0.0	13.5	1.2	3.3	0.0	2.6
Fines	0.0	4.9	1.6	1.7	0.9	2.3
SPECIAL WASTES						
Asbestos	0.0	0.0	0.0	0.0	0.0	0.0
Bulky Items	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0
			100			

18 samples analyzed

JOB:88167B-2a 08/16/90

CITY OF AZUSA
INDUSTRIAL WASTE COMPOSITION

	Average Composition (%)		Std. Deviation (%)		90% Confidence Interval (%)	
PAPER						
Corrugated Containers	23.0%		21.9%		6.1%	
Mixed Paper	8.0%		8.6%		2.4%	
Newspaper	1.0%		2.1%		0.6%	
Ledger	1.6%		3.7%		1.1%	
Other Paper	5.9%	39.5%	4.7%	22.5%	1.3%	6.3%
PLASTIC						
Containers	3.0%		5.0%		1.4%	
PET containers	0.1%		0.3%		0.1%	
HDPE containers	0.5%		1.0%		0.3%	
Film plastics	2.5%		3.6%		1.0%	
Polystyrene	0.5%		1.0%		0.3%	
Other plastics	3.1%	9.7%	6.6%	9.2%	1.9%	2.6%
GLASS						
Refillable glass	0.0%		0.0%		0.0%	
CA redemption glass	2.3%		3.2%		0.9%	
Other recyclable glass	1.1%		1.8%		0.5%	
Other non-recyclable glass	0.2%	3.6%	0.7%	3.8%	0.2%	1.1%
METALS						
Aluminum cans	0.2%		0.6%		0.2%	
Tin cans	0.5%		1.9%		0.5%	
Ferrous metals	6.4%		8.9%		2.5%	
Non-ferrous metals	1.3%		5.5%		1.6%	
White goods	0.0%		0.0%		0.0%	
Other metals	0.5%	8.9%	1.8%	12.9%	0.5%	3.6%
YARD WASTE						
Grass/leaves	0.3%		1.6%		0.4%	
Prunings	0.9%	1.2%	3.7%	4.6%	1.0%	1.3%
ORGANICS						
Food waste	0.3%		0.7%		0.2%	
Wood waste	19.9%		21.9%		6.2%	
Tires and rubber	4.8%		11.2%		3.2%	
Textiles and leather	1.7%		3.6%		1.0%	
Other organics	0.6%	27.3%	2.7%	21.5%	0.8%	6.1%
OTHER WASTES						
Inert solids	5.9%		11.2%		3.2%	
Miscellaneous	0.8%	6.7%	2.9%	11.3%	0.8%	3.2%
SPECIAL WASTE						
Ash	1.7%		5.9%		1.7%	
Industrial sludge	0.4%		2.4%		0.7%	
Asbestos	0.2%		1.3%		0.4%	
Auto shredder	0.0%		0.0%		0.0%	
Other special waste	0.9%	3.2%	0.0%	7.4%	1.0%	2.1%
Hazardous waste	0.4%		1.1%		0.3%	
Total Waste	100.5%					

TABLE 6. SINGLE-FAMILY RESIDENTIAL ROUTES: DATA SUMMARY/STATISTICAL ANALYSIS (All Values % by Weight)

			Min Value	Max Value	Mean	Std Dev	90% Confidence Interval Lower	90% Confidence Interval Upper
PAPER	Total	30.3						
Newsprint			0.0	15.2	4.9	3.9	2.8	7.0
Corrugated Containers			0.0	18.4	5.2	5.1	2.4	7.9
High-grade			0.0	4.4	1.0	1.4	0.3	1.8
Mixed			3.4	18.7	11.9	5.0	9.2	14.5
Contaminated			2.1	17.8	7.3	4.3	5.0	9.6
PLASTICS	Total	10.4						
Containers			0.0	5.0	1.3	1.5	0.5	2.1
PET			0.0	2.6	0.8	0.8	0.4	1.2
HDPE			0.3	3.1	1.3	0.8	0.9	1.7
Film			0.0	12.3	3.2	3.1	1.5	4.9
Polystyrene			0.2	1.9	0.7	0.4	0.4	0.9
Other			0.6	9.8	3.1	2.6	1.7	4.5
GLASS	Total	5.5						
Ca. Redemption Value			1.0	6.9	2.6	1.8	1.7	3.6
Containers			0.0	6.3	2.9	1.7	2.0	3.8
Other			0.0	0.3	0.0	0.1	0.0	0.1
METALS	Total	4.4						
Aluminum Cans			0.0	1.0	0.4	0.3	0.3	0.6
Tin cans			1.0	4.4	2.1	0.9	1.6	2.6
Ferrous			0.0	3.8	0.9	1.1	0.3	1.5
Nonferrous			0.0	3.5	0.7	1.0	0.2	1.2
White Goods			0.0	0.0	0.0	0.0	0.0	0.0
Mixed metals			0.0	2.3	0.2	0.7	0.0	0.6
YARD WASTE	Total	20.8						
Grass/leaves			0.0	33.6	17.5	10.2	12.0	23.0
Prunings			0.0	21.0	3.3	5.9	0.1	6.5
NON-PAPER ORG	Total	23.3						
Food			3.7	17.9	10.3	5.0	7.6	13.0
Wood			0.0	4.1	1.0	1.4	0.3	1.8
Tires and Rubber			0.0	7.1	0.8	2.0	0.0	1.9
Manure			0.0	0.0	0.0	0.0	0.0	0.0
Disposable Diapers			0.6	10.2	3.7	3.0	2.1	5.3
Textiles			0.5	7.4	2.7	2.4	1.4	4.0
Other			0.0	10.5	4.8	2.7	3.4	6.2
OTHER WASTES	Total	5.3						
Asphalt			0.0	0.0	0.0	0.0	0.0	0.0
Concrete			0.0	0.0	0.0	0.0	0.0	0.0
Other Inert Solids			0.0	6.0	1.4	2.2	0.2	2.6
Household Haz. Wst.			0.0	4.4	0.8	1.6	0.0	1.6
Fines			0.0	3.7	1.6	1.4	0.9	2.4
Misc.			0.0	6.1	1.5	2.2	0.3	2.7
SPECIAL WASTES	Total	0.0						
Asbestos			0.0	0.0	0.0	0.0	0.0	0.0
Bulky Items			0.0	0.0	0.0	0.0	0.0	0.0
					100.0			

11 samples analyzed

APPENDIX B-7

ANALYSIS OF VARIANCE FORMULAS

ANALYSIS OF VARAINCE (ANOVA) FORMULAS AND METHODS OF CALCULATION

Primary Assumption: $\mu_1 = \mu_2$,

where μ_1 is the mean percent by weight of a certain type of waste from one of the working group cities

and μ_2 is the mean percent by weight of a certain type of waste from a comparable city

Estimation of the Common Population Variance Based on Between-Means Variability:

$$v_B = \frac{\sum_i n_j(a_j - b)^2}{k - 1}$$

v_B = estimate of population variance

n = sample size to compute sample mean

a_j = mean of sample from the working group cities and the comparable city

bj = weighted mean of the samples from the working group data and the comparable city data

k = number of populations being compared

Estimation of the population variance based on the with-in means variability:

$$v_W = \frac{\sum_j (n_j - 1)v_j}{\sum_j n_j - k}$$

v_W = estimate of common population variance

n_j = number of samples from each population

v_j = sample variance

k = number of population being compared

Variance Ratio to test if $\mu_1 = \mu_2$: v_B/v_W

Degrees of Freedom to obtain F value:

numerator degrees of freedom: $k - 1$

denominator degrees of freedom: $\sum_j n_j - k$

Source: Anderson, David R, et. al., 1981, *Introduction to Statistics: An Applications Approach.* St. Paul: West Publishing Company.

APPENDIX B-8

PUENTE HILLS RECYCLE, SURVEY RESULTS
UNITED PACIFIC CORPORATION, SURVEY RESULTS

PUENTE HILLS RECYCLING CENTER

Survey -- 2 week period*

South East Area Cities	# of Cusotmers
Bellflower	03
Cerritos	06
Downey	04
Hawaiian Gardens	03
La Mirada	06
Norwalk	10
Pico Rivera	07
Santa Fe Springs	10
Whittier	108

* Start date December 27, 1990

BUSINESS RECYCLING AND SOURCE REDUCTION SURVEYS

Dear Businessperson:

The City of requires your assistance in providing information on the amount and type of solid waste (garbage) that is being disposed of, recycled, and/or reduced by businesses that are located within the City. This includes solid waste that is generated within the City and recycled outside of the City.

As you may already know, under a newly adopted waste management law, AB 939, all cities in the State of California are requested to document the type and quantity of waste materials that are being generated, diverted, or reduced in any way. The City must submit this information in a report that describes how the City will recycle 25 percent of its waste by 1995 and 50 percent by the year 2000. The maximum fine for failure to comply is $10,000.

To help us determine the amount of waste currently being generated and recycled in the City, please complete the enclosed forms and return them by January 11, 1991, to the City's consultant:

EMCON Associates
3300 N. San Fernando Blvd.
Burbank, California 91504
Attention: Peter Woodfill

Thank you very much for your response to this request. If you have any questions, please call Mr. Woodfill at (714) 362-1130.

Sincerely,

Attachment: Survey Forms

BUSINESS RECYCLING SURVEY

The information in this survey is to be used to prepare a report to comply with the California Code of Regulations, Chapter 9, Title 14, and will be kept confidential.

COMPANY NAME:_____

ADDRESS:_____

_____TELEPHONE:_____

CONTACT PERSON:_____TITLE:_____

SIC CODE NUMBER (if known):_____ or TYPE OF BUSINESS:_____

NUMBER OF EMPLOYEES AT THIS SITE:_____

When completed, please return this survey by January 11, 1991, along with the Source Reduction Survey, to:

Peter Woodfill
EMCON Associates
3300 N. San Fernando Blvd.
Burbank, California 91504

If you have questions regarding this survey, please call Mr. Woodfill at (714) 362-1130.

Thank you for completing these surveys.

---

1. What company picks up the trash from your facility? (e.g. Western Waste, BFI, etc.)

   _____

2. On the average, how much trash is picked up each week from your facility? (Container sizes v
   please give amount) _____cubic yards_____pounds_____ tons

3. Are you doing any recycling at your facility? Yes_____No_____

   If YES: 3a. Estimate the amount of materials that you recycled in a recent 12-month period
   the following page.

   3b. Indicate the 12-month period that your estimate covers:

   From: _____ (month/year) To: _____ (month/year)

   3c. Do you plan to increase the amount your facility recycles in 1991?

   Yes_____ No _____ Increase or decrease by how much? _____%

   3d. Would you like to learn how you can expand your recycling? _____

   If NO: 3e. Are you planning to recycle at your facility in 1991? Yes _____ No _____

   If YES, write "Planned" next to the materials in the "Amount Recycled" colum
   the following page.

   3f. Would you like to learn how your facility can recycle? Yes _____ No _____

Recyclable Materials	Amount Recycled ** Specify unit ** (pounds, tons, etc.)	Where or To Whom did the Material Go? (see below)
PAPER		
Corrugated cardboard		
Mixed paper		
Newspaper		
High grade ledger		
Other paper (specify)		
PLASTICS		
HDPE containers		
PET containers		
Film plastics		
Other plastics		
GLASS		
Refillable glass beverage containers		
CA Redemption Value glass		
Other recyclable glass		
METALS		
Aluminum cans		
Bi-metal containers		
Ferrous metals and tin cans		
Non-ferrous metals, aluminum scrap		
White goods (appliances, etc.)		
YARD WASTE		
including leaves, grass and prunings		
OTHER ORGANICS		
Food waste		
Tires and rubber products		
Wood waste, incl. pallets		
Agricultural crop residues		
Textiles and leather		
INERT SOLIDS		
Rock, concrete, brick		
Sand, soil or dirt		
SPECIAL WASTES		
Ash		
Industrial sludge		
Batteries		
Oil		
Other (specify, e.g. toner cartridges)		

Printed on Recycled Paper

Examples of companies that accept recyclables: AlphaBeta, Wilson's Metal Exchange, etc.

WHAT IS SOURCE REDUCTION ?

DECREASED CONSUMPTION

Reduce Material Volume

- Make two-sided copies
- Use routing slips
- Use electronic mail
- Buy in bulk
- Offer waste reduction incentives to employees

Increase Product Durability

- Purchase durable goods
- Design durable products
- Provide/use maintenance contracts to extend the life of equipment

MATERIAL REUSE

- Use cloth towels, retreaded tires, refillable pens, reusable air filters, returnable bottles
- Reuse packaging or packing material
- Provide/use returnable packaging containers
- Donate used equipment
- Use ceramic coffee mugs
- Reuse blank sides of paper for scratch
- Use silverware and dishes in the cafeteria
- Compost, mulch or chip on site
- Rent equipment rather than buying
- Use a waste exchange program
- Design for reuse or recyclability

Please us. his cover sheet to help fill out the following s ey, then tear it off and keep for future refere 9.

SOURCE REDUCTION SURVEY

COMPANY NAME:_____

ADDRESS:_____ TELEPHONE:_____

CONTACT PERSON:_____ TITLE:_____

When completed, please return <u>both</u> this survey and the recycling survey <u>together</u> by January 11, 1991, to:
Peter Woodfill, EMCON Associates, 3300 N. San Fernando Blvd., Burbank, California 91504.
If you have questions regarding this survey, call Mr. Woodfill at (714) 362-1130.

REDUCE MATERIAL VOLUME

1. Does your company have a duplex (double-sided) copier? Yes_____ No_____

If yes, what percentage of the copies made are two-sided?_____%

What quantity of white office or xerographic paper do you purchase? per year_____ per month_____

Please estimate the quantity of paper you save by using a duplex copier: per year_____ per month_____

The above is an example of reducing material volume. Using the list provided, are you practicing any additional means of reducing your office waste? If yes, please describe below.

_____

_____

_____

_____

INCREASE PRODUCT DURABILITY

2. Does your company provide or use maintenance contracts to extend the life of facility equipment?
Yes_____: Provide_____ Use_____ No_____: Provide_____ Use_____

The above is an example of increasing product durability. Using the list provided, are you practicing any additional means of increasing durability of products or materials you use or produce? If yes, please describe below.

_____

_____

MATERIAL REUSE

3. Do you provide ceramic or non-disposable coffee mugs for your employees? Yes____No____
   Are you using silverware in your food service area? Yes____No____
   The above are examples of materials reuse. Using the list provided, are you practicing any additional means of reusing supplies in your office setting? If yes, please describe below.

_____

_____

MATERIAL REUSE

4. Do you/your groundskeeper mulch, chip, or compost landscape clippings on-site? Yes _____No_____
   If yes, please determine the number of cubic yards composted per month;_____

GENERAL SOURCE REDUCTION

5. Please refer to the attached cover sheet which suggests methods for reducing solid waste disposal. If you are practicing any of these means, or any others which you think are source reduction, please describe below.

_____

_____

COMPANY SOURCE REDUCTION POLICIES

Do you have a company policy to use any of the following source reduction methods? Please place a check by all those that apply.

- _____ purchase material/products with recycled content
- _____ purchase durable materials
- _____ purchase recyclable materials
- _____ purchase reusable materials
- _____ provide source reduction educational programs for employees or for the general public
- _____ provide employee incentive program for source reduction suggestions/practices
- ____ set manufacturing goals to reduce the amount of solid waste created and save on disposal costs

RECYCLING COLLECTOR/BROKER SURVEY

Dear Recycler:

The City of requires your assistance in providing information on the amount and type of solid waste (garbage) that is being disposed of, recycled, and/or reduced by businesses that are located within the City. This includes solid waste that is generated within the City and recycled outside of the City.

As you may already know, under a newly adopted waste management law, AB 939, all cities in the State of California are requested to document the type and quantity of waste materials that are being generated, diverted, or reduced in any way. The City must submit this information in a report that describes how the City will recycle 25 percent of its waste by 1995 and 50 percent by the year 2000. The maximum fine for failure to comply is $10,000.

To help us determine the amount of waste currently being recycled in the City, please complete the enclosed forms and return them by January 11, 1991, to the City's consultant:

EMCON Associates
3300 N. San Fernando Blvd.
Burbank, California 91504
Attention: Peter Woodfill

The City of is a member of the East San Gabriel Valley Integrated Waste Management Joint Powers Authority along with a number of other cities in the area. Therefore, you may receive a number of identical survey forms from the other participating cities. If you receive multiple forms, we ask that you complete a separate one for each city.

Thank you very much for your response to this request. If you have any questions, please call Mr. Woodfill at (714) 362-1130.

Sincerely,

Attachment: Survey Form

CITY OF
RECYCLING COLLECTOR/BROKER SURVEY

The information in this survey is to be used to prepare a report to comply with the California Code of Regulations, Chapter 9, Title 14, and will be kept confidential.

Please return this survey by January 11, 1991. When completed, please send it to Peter Woodfill, EMCON Associates, 3300 N. San Fernando Blvd., Burbank, California 91504. If you have questions regarding this survey, call Mr. Woodfill at (714) 362-1130.

COMPANY NAME:_____

ADDRESS:_____

_____TELEPHONE:_____

CONTACT PERSON:_____TITLE:_____

TYPE OF BUSINESS: (Please check all that apply.)

_____Collector/Hauler

_____Dealer/Packer/Broker

_____AB 2020 Redemption Center

_____Buy-Back Center

_____Donation Center

_____Non-profit Organization

_____Commercial Composter

_____Other Commercial Recycler (Specify)_____

_____Special Waste Recycler (See listing on page 3; specify)_____

_____News Bin Operator

_____End market/Manufacturer

_____Scrap Metal Dealer

_____Confidential Paper Service

_____Asphalt/Concrete Recycler

_____Demolition Debris Recycler

_____Wood Waste Chipper

1. Estimate the total amount of recyclables you collected over the last 12-month period:

_____Total (give units): _____ 12-months used is from_____ to _____

2. Estimate the percentage of your business that comes from each of the following areas:

_____	Baldwin Park
_____	Claremont
_____	Covina
_____	Diamond Bar
_____	Duarte
_____	El Monte
_____	Glendora
_____	Irwindale
_____	La Habra Heights
_____	La Puente
_____	La Verne
_____	Pomona
_____	San Dimas
_____	South El Monte
_____	Walnut
_____	West Covina
_____	Unincorp. LA County
_____	Other
100 %	TOTAL

3. Source of the material (please indicate % if more than one source):
Residents_____ Government_____ Commercial Businesses_____ Industry_____

4. On the following page, please include the TOTAL TONS of MATERIAL COLLECTED, BY TYPE, in the 12-month period from an aggregate of accounts WITHIN THE AREA ENCOMPASSED, NOT from other sources.

5. Amount of residue:_____% of total amount collected which is not recyclable and is discarded.

6. What is your estimated cost of disposal of the residues per year: _____

7a. Anticipated increase in recycling tonnage for 1991:_____% or

7b. Anticipated decrease in recycling tonnage for 1991:_____%

CITY OF
RECYCLING COLLECTOR/BROKER SURVEY

The information in this survey is to be used to prepare a report to comply with the California Code of Regulations, Chapter 9, Title 14, and will be kept confidential.

Please return this survey by January 11, 1991. When completed, please send it to Peter Woodfill, EMCON Associates, 3300 N. San Fernando Blvd., Burbank, California 91504. If you have questions regarding this survey, call Mr. Woodfill at (714) 362-1130.

COMPANY NAME:_____

ADDRESS:_____

_____TELEPHONE:_____

CONTACT PERSON:_____TITLE:_____

TYPE OF BUSINESS: (Please check all that apply.)

_____Collector/Hauler

_____Dealer/Packer/Broker

_____AB 2020 Redemption Center

_____Buy-Back Center

_____Donation Center

_____Non-profit Organization

_____Commercial Composter

_____News Bin Operator

_____End market/Manufacturer

_____Scrap Metal Dealer

_____Confidential Paper Service

_____Asphalt/Concrete Recycler

_____Demolition Debris Recycler

_____Wood Waste Chipper

_____Other Commercial Recycler (Specify)_____

_____Special Waste Recycler (See listing on page 3; specify)_____

APPENDIX B-9

HOUSEHOLD SOURCE REDUCTION AND RECYCLING SURVEY FORM

SOUTHEAST AREA CITIES
HOUSEHOLD SOURCE REDUCTION AND RECYCLING SURVEY

Phone Number:_____

City: _____

	Date	Time	Result
1st Attempt	___/___	_____ AM/PM	_____
2nd Attempt	___/___	_____ AM/PM	_____
3rd Attempt	___/___	_____ AM/PM	_____

Hello, my name is _____, I work for Clements Engineers. We have been hired by your city to conduct a survey of residents regarding recycling activities. I would like to ask you a few questions, it should only take a few minutes. Is this a good time to call?

_____Yes _____No, call back _____

A. Source Reduction

1. How many people live in your household? _____(#)

2. Do you live in a single family house?

____ Yes ____ No, Do you live in a

____Town house
____Duplex
____Triplex
____Fourplex
____Apartment

3. a) Do you have a yard or garden space which you maintain?

____ No ____ Yes

b) Is the majority of your yard space:

____Lawn
____Flowers
____Shrubs and Trees
____Vegetable Garden
____Ground Cover or Ivy

c) How much yard waste do you produce in an average week?

1. _____# trash cans
2. _____# plastic yard bags

d) Do you compost or recycle the majority of your yard wastes (leaves, grass clippings, branches, brush, weeds, etc...)?

____ Yes ____ No, or, do you

____Collect and put them out with garbage.
____Pay a yard service to collect them.
____Composted someplace else
____Other _____

If yes, how much yard waste do you compost or recycle per month? _____ (lbs./month or volume/month)

4. In the past 12 months, has a major appliance such as a refrigerator, stove, stereo, or TV broken down?

____ No ____ Yes, if so, what appliance was it, and how old was it?

Type of Appliance	Age of Appliance
_____	_____ years
_____	_____ years
_____	_____ years

(b) Did you
_____ repair it
_____ sell it
_____ donate it to,_____
_____ put it in the trash.
_____ have the appliance company haul it away.

5. a) Over the past 12 months, have you had a garage or yard sale?

____Yes ____No

b) If you had not sold these items, would you have thrown them away?

____Yes ____No

c) For those items you would have thrown away, what types of items were they, and what was the approximate number of items and their approximate weight?

Item	# of Items	Weight

6. In the past 12 months, have you donated any clothes, furnishings, appliances or other goods to a charitable organization that you would otherwise have throw away?

____Yes ____No

If yes, what organization? _____

Item	# of Items	Weight

7. a) Do you have any children in the household that are still in diapers?

____ No ____ Yes

If Yes:

b) How many? _____

c) Do you use disposable diapers or cloth diapers?

____Disposable
____Cloth

d) If cloth, do you use a diaper service, or do you wash them at home?

_____Diaper Service
_____Wash at home

e) What is the name of the diaper service you use?_____

f) How many diapers do you use a day? _____

8. Do you bring your own shopping bags when you go to the grocery or department store?

____Yes ____No

If yes,

a) How many bags do you normally bring? _____

b) What type of bags did you use before you started bringing your own, paper or plastic?

____Plastic ____Paper ____Both

c) How often do you bring your own bags to the store?

_____

d) Do you bring canvas bags or used paper or plastic bags?

____ Canvas ____ Paper ____ Plastic ____ Both

B. Recycling

1. a) Do you recycle your bottles, cans, jars, newspapers and other household trash items?

____ No ____ Yes

If Yes: a) Do you participate in a City curbside program?

____ No ____ Yes

b) Or, do you take materials to a recycling center yourself?

____ No ____ Yes

c) Other _____

_____

2. If you take your materials to a recycling center, which one do you take it to? _____

a) Why do you take it there? _____

_____

3. What materials do you recycle, and how much of each of these materials do you recycle per week?

____ Aluminum (cans per week): _____

____ Glass Bottles (# per week): _____

____ Plastic containers (# per week); _____

____ Newspaper (# of feet stacked per week): _____

____ Other _____

____ Other _____

C. Self Haul

1. a) Do you ever haul your own trash to the landfill or transfer station?

____ No ____ Yes

b) How often? _____

c) How much? _____

Thank you for your time and for participating in our survey!

APPENDIX B-10

HOUSEHOLD SURVEY STATISTICAL CALCULATIONS

Household Source Reduction Survey
Statistical Calculations

Backyard Composting

31 positive responses/271 surveys = 11.4% average value

Standard Deviation with a 90% confidence interval:

$$\text{std. dev.} = \sqrt{\frac{(0.114)(1-0.114)}{271}} = 0.0193$$

Confidence Interval = $11.4\% \pm 1.645\ (0.0193)$
$11.4\% \pm 0.03$, or 3%

$$\text{Relative Precision} = \frac{(1.645)(0.0193)}{(0.114)(\sqrt{271})} = 0.0168$$

Appliance Repair

8 positive responses/271 surveys = 2.9% average value

Standard Deviation with a 90% confidence interval:

$$\text{std. dev.} = \sqrt{\frac{(0.029)(1-0.029)}{271}} = 0.01$$

Confidence Interval = $2.9\% \pm 1.645\ (0.01)$
= $2.9\% \pm 0.016$ or 1.6%

$$\text{Relative Precision} = \frac{(1.645)(0.01)}{(0.029)(\sqrt{271})} = 0.034$$

Household Item Donation

183 positive responses/271 surveys = 67.5% average value

Standard Deviation with a 90% confidence interval:

$$\text{std. dev.} = \sqrt{\frac{(0.675)(1-0.675)}{271}} = 0.0008$$

Confidence Interval = 67.5% ± 1.645 (0.0008)
= 67.5% ± 0.001, or .1%

$$\text{Relative Precision} = \frac{(1.645)(0.0008)}{(0.675)(\sqrt{271})} = 0.0001$$

APPENDIX B-11

CONVERSION FACTORS FOR WASTE TYPES

CONVERSION FACTORS FOR WASTE TYPES

WASTE TYPE	DENSITY (lbs/cu yd)	AMOUNT (units/cu yd)	REFERENCE
ALUMINUM CANS	50	1300	National Recycling Coalition
APPLIANCES (large)	140 *		EMCON In-House Value
APPLIANCES (small)	15 *		EMCON In-House Value
ASPHALT	1940		Church: Excavation Handbook
BATTERIES (car)	40 *		EMCON Measured Value
BRICK	2430		Church: Excavation Handbook
CARDBOARD (compacted)	285		EMCON Field Data Measurements
CARDBOARD (loose)	90		EMCON Field Data Measurements
CARPET	300		EMCON Field Data Measurements
CONCRETE	2370		Church: Excavation Handbook
DIRT	2660		Church: Excavation Handbook
FILM PLASTICS	49		EMCON Field Data Measurements
FOAM RUBBER	45		EMCON In-House Value
FOOD WASTE	900		Tchobanoglous: Solid Waste Issues
FURNITURE	100 *		EMCON In-House Value
GLASS (mixed)	325		Tchobanoglous: Solid Waste Issues
HDPE	85		EMCON Field Data Measurements
LINOLEUM	400		EMCON Measured Value
MANURE	820		EMCON Measured Value
MATTRESSES	75		EMCON In-House Value
PALLETS	215	6	EMCON Measured Value
PALLETS (single)	36 *		EMCON Measured Value
PAPER (except, pulp, occ)	130		EMCON Field Data Measurements
PAPERBACK BOOKS	667		EMCON Measured Value
PAPER PULP	760		EMCON Field Data Measurements
PLASTICS (mixed)	110		Tchobanoglous: Solid Waste Issues
POLYSTYRENE	38		EMCON Field Data Measurements
ROCK	3300		Church: Excavation Handbook
ROOFING MATERIAL (tar)	1100		EMCON Field Data Measurements
SAWDUST	705		EMCON In-House Value
SCRAP METAL (inc. white gds)	180		EMCON Measured Value
SHEET ROCK	810		Tchobanoglous: Solid Waste Issues
TEXTILES	115		EMCON Field Data Measurements
TIRES (laced)	360	18	EMCON Field Data Measurements
TIRES (loose)	165	8	EMCON Field Data Measurements
TIRES (single)	20 *		EMCON In-House Value
WATER HEATER	117 *		EMCON In-House Value
WOOD (demo)	475		EMCON Field Data Measurements
YARD WASTE (industrial)	400		EMCON Field Data Measurements
YARD WASTE (residential)	230		EMCON Measured Value

* Weights of individual or single items.

APPENDIX B-12

Letter from the Los Angeles County Integrated
Waste Management Task Force to the
California Integrated Waste Management Board
dated March 28, 1991

LOS ANGELES COUNTY
SOLID WASTE MANAGEMENT COMMITTEE /
INTEGRATED WASTE MANAGEMENT TASK FORCE
900 SOUTH FREMONT AVENUE ALHAMBRA, CALIFORNIA 91803-1331
P.O. BOX 1460 ALHAMBRA, CALIFORNIA 91802

THOMAS A. TIDEMANSON
CHAIRMAN

March 28, 1991

WM-2

Mr. George Larson, Chief Executive Officer
California Integrated Waste Management Board
1020 Ninth Street, Suite 300
Sacramento, CA 95814

Dear Mr. Larson:

REMAINING PERMITTED DISPOSAL CAPACITY OF
SOLID WASTE FACILITIES IN
LOS ANGELES COUNTY

Pursuant to the requirements of Section 41791 of the Public Resources Code regarding the date of submission of the Countywide Siting Element and the County Integrated Waste Management Plan for Los Angeles County, the following is offered.

The citizens of Los Angeles County are currently disposing of approximately 51,000 tons (1990 average daily disposal - six days/week) of solid waste per day. Approximately 43,245 tons of this waste are disposed of in 19 permitted Class III landfills (see Table 1, enclosed), 1,000 tons are managed by two waste-to-energy facilities (does not include the 500 tons of residual ash which is landfilled), and the remaining inert waste tons are disposed of at the permitted unclassified landfills.

At present, the remaining permitted Class III capacity in this County is estimated at 99 million tons (Table 1). Based on the 1990 average disposal rate of 43,245 tons per day (six days per week) as shown on Table 1, this capacity will be mathematically exhausted by the year 1999. However, this is misleading in that the majority of landfills have a number of restrictions which significantly impact their operations. These include expiration of the land use permit; restriction on acceptance of waste generated outside a jurisdiction and/or wasteshed boundary; permit restrictions on daily tonnage that can be accepted; and/or limitation on daily tonnage that can be handled at a facility due to lack of manpower and equipment.

At the present time, several of the operating Class III landfills have operating restrictions reducing available daily disposal capacity in the County. Burbank and Whittier (Savage Canyon) can only receive solid waste generated within their respective cities. Lopez Canyon can only receive solid waste generated by single- and multi-family residential customers within the City of Los Angeles which have been collected by City of Los Angeles Bureau of Sanitation trucks; while Puente Hills and Spadra are prohibited from receiving any waste

originating from the City of Los Angeles. Calabasas and Scholl Canyon Landfills only accept solid waste generated within defined wastesheds, while Brand Park, Pitchess Honor Rancho, and San Clemente are not open to the public.

As indicated in Table 1, Class III landfills had a permitted daily capacity of 63,950 tons in January 1991; however, this permitted capacity was reduced by 6,500 tons per day to 57,450 tons per day due to closure of Azusa Western Landfill as the result of a California Apellate Court decision. Additionally, by January 30, 1996, eight of the remaining landfills, representing 35,500 tons of permitted daily capacity, could be closed due to capacity limitations or the expiration of land use permits.

Based on the foregoing and utilizing a diversion rate of 25 percent, the County of Los Angeles will experience daily disposal capacity shortfalls within five years. Accordingly, the County will prepare and submit the CSE and the CoIWMP to the Board by January 1, 1992, pursuant to requirements of Section 41791 of the PRC.

We look forward to working with you in implementing the provisions of the California Integrated Waste Management Act of 1989, as well as other matters of joint interest.

Very truly yours,

T. A. TIDEMANSON, Chairman
Los Angeles County Solid Waste Management
Committee/Integrated Waste Management Task Force

HA:mc2/GL

Enc.

TABLE 1

REMAINING PERMITTED COMBINED DISPOSAL CAPACITY EXISTING SOLID WASTE FACILITIES IN LOS ANGELES COUNTY

Class III Landfill	Solid Waste Facility Permit	Facility Address	Operation Days/ week	Jan. 1991 SWFP Daily Capacity (tons)	LUP Daily Capacity (tons)	1990 Average Daily Tonnage 6 days/wk	Addt'l Daily Tonnage That Can Be Handled	Quantity of Municipal Solid Waste Disposed million tons/ Year 1990	Projected remaining permitted capacity millions tons	million cubic yards	Comments
Antelope Valley	19-AA-0009	1200 West City Ranch Road Palmdale, CA 93550	7	350	----	400	0	0.125	.925	2.6	Approx. date of closure 1996
Azusa Land Reclamation	19-AA-0013	1201 Gladstone Avenue Azusa, CA 91702	6	6,500	6,500	2,756	0	0.86	0	0	1/91 Appelate Court[c] rescinded permit
BKK	19-AF-0001	2210 South Azusa Avenue West Covina, CA 91790	6	12,000[a]	----	9,744	1,600[d]	3.04	15.96	23.8	Date of closure 11/30/95
Bradley West	19-AR-0008	9227 Tujunga Avenue Sun Valley, CA 91352	6	7,000	9,500	1,923	1,577	0.60	11.8	19.7	LUP expires 12/29/93
Brand Park	19-AA-0006	1601 West Mountain Street Glendale, CA 91207	5	104	----	48	0[e]	0.015	0.306	0.875	Private use only
Burbank	19-AA-0040	1600 Lockheed View Drive Burbank, CA 91810	5	240	----	196	44	0.061	11.44	22.0	Limited to the City's use only
Calabasas	19-AA-0056	26919 Ventura Freeway Agoura, CA 91301	6	3,500	----	2,724	776	0.85	15.155	21.6	Limited to the Calabasas Wasteshed
Chiquita Canyon	19-AA-0052	29201 Henry Mayo Drive Newhall, CA 91322	7	5,000	----	1,763	1,237	0.55	1.78	2.2	LUP expires 11/24/97
Lancaster	19-AA-0050	600 East Avenue F Lancaster, CA 93534	6	450	----	295	5	0.092	0.15	0.5	LUP expires 12/95
Lopez Canyon	19-AA-0820	11950 Lopez Canyon Road Pacoima, CA 91331	5	4,100[b]	4,000	3,109	891	0.97	4.2	7.0	LUP expires 1/30/96 limited to City of Los Angeles use only.
Pebbly Beach	19-AA-0061	Santa Catalina Island Avalon, CA 90704	6	30	----	10	20	0.003	0.097	0.16	
Pitchess Honor Rancho	19-AA-0057	29300 The Old Road Saugus, CA 91350	5	23	----	17	6	0.0054	2.24	3.73	Approx. date of closure 1994. Private use only
Puente Hills	19-AA-0053	2800 S. Workman Mill Rd. Whittier, CA 90607	6	12,000	13,200	11,859	1,341	3.7	7.5	10.7	LUP limits to 72,000 tpw LUP expires 10/31/93, no waste from City of L.A.
San Clemente	19-AA-0063	San Clemente Island LA County, CA 92135	5	1	----	1	0	0.002	0.024	0.034	LUP expires 10/31/91
Scholl Canyon	19-AA-0012	7721 North Figueora St. Los Angeles, CA 90041	6	3,400	----	2,179	1,221	0.68	13.32	19	Limited to the Scholl Cyn. wasteshed only
Spadra	19-AA-0015	4125 West Valley Blvd. Walnut, CA 91789	6	3,000	----	2,724	276	0.85	6.95	9.93	LUP limits to 18,000 tpw reduces to 1,5000 tpw 7/1/95, no City of L.A. waste accepted
Sunshine Canyon (North Valley)	19-AR-0002	14747 San Fernando Road Los Angeles, CA 91342	6	7,000	6,000	3,141	2,859	0.98	0.4	1.64	LUP expires 9/28/91
Two Harbors	19-AA-0062	Two Harbors Avalon, CA	5	3.5	----	3.5	0	0.000088	0.0073	0.0104	
Whittier (Savage Canyon)	19-AH-0001	13919 East Penn Street Whittier, CA 91350	6	350	----	353	0	0.11	6.39	10.6	Limited to the City of Whittier use only
Total				63,950[f]		43,245	11,882	13.49	98.65	156.08	

Source: Los Angeles County Department of Public Works, January 1991.
Based on written surveys of all Solid Waste facilities currently operating in Los Angeles County conducted October,1990 and phone survey, January 1991.

MA:gs5/Tab1-Tab3
03/28/91

Note: [a] Daily capacity established in 6/90, Notice and Order, as amended, by the City of West Covina.
[b] Daily capacity established by RDSI and Courts.
[c] Ceased operation as a Class III landfill on 2/21/91.
[d] BKK can handle additional 2,400 tpd if SWFP limit is revised.
[e] Operator has informed DPW that additional waste cannot be handled due to manpower and equipment limitation.
[f] Average daily tonnage, Monday through Friday.

APPENDIX C

C-1: Sample Size Formula

C-2: Field Data Sheet

C-3: Field Sorting Data

C-4: Statistical Analysis Equations

C-5: Waste Disposal Composition for each Working Group

APPENDIX C-1

SAMPLE SIZE FORMULA

SAMPLE SIZE FORMULA FOR PERCENTAGES
KLEE AND CARRUTH METHOD

$$n = \frac{[Z(1-\alpha/2)]^2 S^2}{2[\arcsin\sqrt{p} - \arcsin\sqrt{(p+0.02)}]^2}$$

where: n = sample size

$Z(1-\alpha/2)$ = standard normal variable that corresponds to the desired confidence level

S = standard deviation of the sample

p = percentage measurement

APPENDIX C-2

FIELD DATA SHEET

SOUTH BAY
RESIDENTIAL FIELD DATA SHEET

SAMPLE NUMBER:			
Supervisor:		Time:	
Date: / /91		Day:	
SAMPLE TYPE	**X**	City:	
Residential			
Commercial		Sample street and cross street:	
Industrial			

WASTE TYPE	CONTAINER 1 wt (lbs)	CONTAINER 1 vol (gal)	CONTAINER 2 wt (lbs)	CONTAINER 2 vol (gal)	TOTAL wt (lbs)	TOTAL vol (gal)
Corr.containers/paper bags						
Mixed paper						
Newspaper						
Ledger						
Computer printouts						
Other paper						
HDPE containers						
PET containers						
Film plastics						
Other plastics						
Polystyrene						
PVC						
Refillable glass containers						
CA redemption glass						
Other recyclable glass						
Other non-recyclable glass						
Aluminum cans						
Bi-metal containers						
Ferrous metals						
Non-ferrous metals						
White goods						
Other metals						
Yard waste						
Food waste						
Tires and rubber						
Wood						
Crop residues						
Manure						
Diapers						
Textiles & leather						
Other organics						
Inert solids(rock,concrete...)						
Hshld hazard. waste/containers						
Ash						
Sewage sludge						
Industrial sludge						
Asbestos						
Auto shredder waste						
Auto bodies						
Other special waste						

WRITE COMMENTS ON BACK OF SHEET

QA/QC: _____

S.B.FIELDSHEETCOMMA/S.BAY DISK

Rev 4/29

SOUTH BAY
COMMERCIAL/INDUSTRIAL FIELD DATA SHEET

SAMPLE NUMBER:			
Supervisor:			Time:
Date: / /91			Day:
SAMPLE TYPE	**X**	City:	Business name:
Residential			
Commercial		Times picked up per week:	Business address:
Industrial		Bin size:	

WASTE TYPE	CONTAINER 1 wt (lbs)	CONTAINER 1 vol (gal)	CONTAINER 2 wt (lbs)	CONTAINER 2 vol (gal)	TOTAL wt (lbs)	TOTAL vol (gal)
Corr.containers/paper bags						
Mixed paper						
Newspaper						
Ledger						
Computer printouts						
Other paper						
HDPE containers						
PET containers						
Film plastics						
Other plastics						
Polystyrene						
PVC						
Refillable glass containers						
CA redemption glass						
Other recyclable glass						
Other non-recyclable glass						
Aluminum cans						
Bi-metal containers						
Ferrous metals						
Non-ferrous metals						
White goods						
Other metals						
Yard waste						
Food waste						
Tires and rubber						
Wood						
Crop residues						
Manure						
Diapers						
Textiles & leather						
Other organics						
Inert solids(rock,concrete...)						
Hshld hazard. waste/containers						
Ash						
Sewage sludge						
Industrial sludge						
Asbestos						
Auto shredder waste						
Auto bodies						
Other special waste						

WRITE COMMENTS ON BACK OF SHEET **QA/QC:**

APPENDIX C-3

FIELD SORTING DATA

Unincorporated Los Angeles County Field Sorting Data

CITY	Unincorp LA County		Unincorp LA County		Unincorp LA County		Unincorp LA County		Unincorp LA County	
SAMPLE TYPE	Industrial		Industrial		Industrial		Industrial		Industrial	
SAMPLE DATE	3/23/91		3/23/91		3/23/91		3/13/91		3/13/91	
SAMPLE NUMBER	F32-I-199		F32-I-200		F32-I-201		F32-I-202		F32-I-203	
SAMPLE LOCATION	Spadra		Spadra		Spadra		BKK		BKK	
TOTAL SAMPLE WEIGHT (lbs)	9,500		22,000		33,000		1,735		18,250	
	WT (lbs)	VOL (gals)	WT (lbs)	VOL (gals)	WT (lbs)	VOL (gals)	WT (lbs)	VOL (gals)	WT (lbs)	VOL (gals)
Corrugated containers	0	0	0	0	0	0	0	0	0	0
Mixed paper	0	0	0	0	0	0	0	0	0	0
Newspaper	0	0	0	0	0	0	0	0	0	0
Ledger	0	0	0	0	0	0	0	0	0	0
Computer printouts	0	0	0	0	0	0	0	0	0	0
Other paper	0	0	0	0	0	0	0	0	0	0
HDPE containers	0	0	0	0	0	0	0	0	0	0
PET containers	0	0	0	0	0	0	0	0	0	0
Film plastics	0	0	0	0	0	0	0	0	0	0
Other plastics	0	0	0	0	0	0	0	0	0	0
PVC	0	0	0	0	0	0	0	0	0	0
Polystyrene	0	0	0	0	0	0	0	0	0	0
Refillable glass	0	0	0	0	0	0	0	0	0	0
CA redemption glass	0	0	0	0	0	0	0	0	0	0
Other recyclable glass	0	0	0	0	0	0	0	0	0	0
Other nonrecyclable glass	0	0	0	0	0	0	0	0	0	0
Aluminum cans	0	0	0	0	0	0	0	0	0	0
Bi-metal containers	0	0	0	0	0	0	0	0	0	0
Ferrous metals	0	0	0	0	0	0	0	0	0	0
Nonferrous metals	0	0	0	0	0	0	0	0	0	0
White goods	0	0	0	0	0	0	0	0	0	0
Other metals	0	0	0	0	0	0	0	0	0	0
Yard waste	0	0	0	0	0	0	0	0	4,000	2,019.6
Food waste	0	0	0	0	0	0	0	0	0	0
Tires and rubber	0	0	0	0	0	0	0	0	0	0
Wood	9,500	4,039.2	0	0	0	0	0	0	14,250	6,058.8
Crop residues	0	0	0	0	0	0	0	0	0	0
Diapers	0	0	0	0	0	0	0	0	0	0
Manure	0	0	0	0	0	0	0	0	0	0
Textiles and leather	0	0	0	0	0	0	0	0	0	0
Misc. other organics	0	0	0	0	0	0	0	0	0	0
Inert solids	0	0	22,000	4,039.2	33,000	6,058.8	1,735	202	0	0
Hazardous waste	0	0	0	0	0	0	0	0	0	0
Ash	0	0	0	0	0	0	0	0	0	0
Sewage sludge	0	0	0	0	0	0	0	0	0	0
Industrial sludge	0	0	0	0	0	0	0	0	0	0
Asbestos	0	0	0	0	0	0	0	0	0	0
Auto shredder	0	0	0	0	0	0	0	0	0	0
Auto bodies	0	0	0	0	0	0	0	0	0	0
Other special waste	0	0	0	0	0	0	0	0	0	0

Unincorporated Los Angeles County Field Sorting Data

CITY	Unincorp LA County		Unincorp LA County		Unincorp LA County		Unincorp LA County		Unincorp LA Co	
SAMPLE TYPE	Industrial		Industrial		Industrial		Industrial		Industrial	
SAMPLE DATE	3/12/91		3/6/91		3/7/91		3/22/91		3/21/91	
SAMPLE NUMBER	F32-I-204		F32-I-205		F32-I-206		F32-I-207		F32-I-208	
SAMPLE LOCATION	BKK		Spadra		Spadra		Spadra		Spadra	
TOTAL SAMPLE WEIGHT (lbs)	28,990		31,245		22,150		16,200		4,249	
	WT (lbs)	VOL (gals)	WT (lbs)	VOL (gals)	WT (lbs)	VOL (gals)	WT (lbs)	VOL (gals)	WT (lbs)	VOL (gals)
Corrugated containers	0	0	0	0	0	0	0	0	0	0
Mixed paper	0	0	0	0	0	0	0	0	0	0
Newspaper	0	0	0	0	0	0	0	0	0	0
Ledger	0	0	0	0	0	0	0	0	0	0
Computer printouts	0	0	0	0	0	0	0	0	0	0
Other paper	0	0	0	0	0	0	0	0	0	0
HDPE containers	0	0	0	0	42.5	101	0	0	0	0
PET containers	0	0	0	0	0	0	0	0	0	0
Film plastics	0	0	0	0	0	0	0	0	0	0
Other plastics	550	1,009.8	660	1,211.8	2,200	4,039.2	0	0	0	0
PVC	0	0	0	0	0	0	0	0	0	0
Polystyrene	0	0	570	3,029.4	380	2,019.6	0	0	0	0
Refillable glass	0	0	0	0	0	0	0	0	0	0
CA redemption glass	0	0	0	0	0	0	0	0	0	[illegible]
Other recyclable glass	0	0	0	0	0	0	0	0	325	[illegible]
Other nonrecyclable glass	0	0	0	0	0	0	0	0	0	0
Aluminum cans	0	0	0	0	0	0	0	0	0	0
Bi-metal containers	0	0	0	0	0	0	0	0	0	0
Ferrous metals	0	0	0	0	0	0	0	0	45	50.5
Nonferrous metals	0	0	0	0	0	0	0	0	0	0
White goods	0	0	0	0	0	0	0	0	0	0
Other metals	0	0	0	0	0	0	0	0	0	0
Yard waste	0	0	3,200	1,615.7	800	403.9	0	0	0	0
Food waste	0	0	0	0	0	0	0	0	0	0
Tires and rubber	0	0	0	0	0	0	0	0	0	0
Wood	0	0	215	202	107.5	101	0	0	118.8	50.5
Crop residues	0	0	0	0	0	0	0	0	0	0
Diapers	0	0	0	0	0	0	0	0	0	0
Manure	0	0	0	0	0	0	0	0	0	0
Textiles and leather	0	0	0	0	0	0	0	0	0	0
Misc. other organics	0	0	0	0	0	0	0	0	0	0
Inert solids	28,440	2,423.5	26,600	2,019.6	18,620	1,413.7	16,200	4,039.2	3,760	302.9
Hazardous waste	0	0	0	0	0	0	0	0	0	0
Ash	0	0	0	0	0	0	0	0	0	0
Sewage sludge	0	0	0	0	0	0	0	0	0	0
Industrial sludge	0	0	0	0	0	0	0	0	0	0
Asbestos	0	0	0	0	0	0	0	0	0	0
Auto shredder	0	0	0	0	0	0	0	0	0	
Auto bodies	0	0	0	0	0	0	0	0	0	[illegible]
Other special waste	0	0	0	0	0	0	0	0	0	0

Unincorporated Los Angeles County Field Sorting Data

CITY	Unincorp LA County		Unincorp LA County		Unincorp LA County	
SAMPLE TYPE	Industrial		Industrial		Industrial	
SAMPLE DATE	3/18/91		3/19/91		3/19/91	
SAMPLE NUMBER	F32-I-209		F32-I-210		F32-I-211	
SAMPLE LOCATION	Puente Hills		BKK		Puente Hills	
TOTAL SAMPLE WEIGHT (lbs)	2,668		19,995		12,098	
	WT (lbs)	VOL (gals)	WT (lbs)	VOL (gals)	WT (lbs)	VOL (gals)
Corrugated containers	0	0	90	202	0	0
Mixed paper	0	0	0	0	0	0
Newspaper	0	0	0	0	0	0
Ledger	0	0	0	0	0	0
Computer printouts	0	0	0	0	0	0
Other paper	0	0	0	0	0	0
HDPE containers	0	0	0	0	0	0
PET containers	0	0	0	0	0	0
Film plastics	98	403.9	0	0	98	403.9
Other plastics	0	0	0	0	0	0
PVC	0	0	0	0	0	0
Polystyrene	0	0	0	0	0	0
Refillable glass	0	0	0	0	0	0
CA redemption glass	0	0	0	0	0	0
Other recyclable glass	0	0	0	0	0	0
Other nonrecyclable glass	0	0	0	0	0	0
Aluminum cans	0	0	0	0	0	0
Bi-metal containers	0	0	0	0	0	0
Ferrous metals	0	0	0	0	0	0
Nonferrous metals	0	0	0	0	0	0
White goods	0	0	0	0	0	0
Other metals	0	0	0	0	0	0
Yard waste	0	0	2,000	1009.8	12,000	6,058.8
Food waste	0	0	0	0	0	0
Tires and rubber	0	0	0	0	0	0
Wood	950	403.9	3,325	1,413.7	0	0
Crop residues	0	0	0	0	0	0
Diapers	0	0	0	0	0	0
Manure	0	0	0	0	0	0
Textiles and leather	0	0	0	0	0	0
Misc. other organics	0	0	0	0	0	0
Inert solids	1,620	403.9	14,580	1,009.8	0	0
Hazardous waste	0	0	0	0	0	0
Ash	0	0	0	0	0	0
Sewage sludge	0	0	0	0	0	0
Industrial sludge	0	0	0	0	0	0
Asbestos	0	0	0	0	0	0
Auto shredder	0	0	0	0	0	0
Auto bodies	0	0	0	0	0	0
Other special waste	0	0	0	0	0	0

Unincorporated Los Angeles County Field Sorting Data

CITY	Unincorp. LA County		Unincorp. LA County		Unincorp. LA County		Unincorp. LA County	
SAMPLE TYPE	Commercial		Commercial		Commercial		Commercial	
SAMPLE DATE	2/11/91		2/11/91		2/12/91		2/12/91	
SAMPLE NUMBER	F32-183		F32-184		F32-208		F32-209	
SAMPLE LOCATION	BKK		BKK		Spadra		Spadra	
TOTAL SAMPLE WEIGHT (lbs)	105.4		157.9		265.3		197.8	
	WT (lbs)	VOL (gals)	WT (lbs)	VOL (gals)	WT (lbs)	VOL (gals)	WT (lbs)	VOL (gals)
Corrugated containers	7.5	20	4.4	20	3.7	15	8.5	40
Mixed paper	4.9	15	62.6	75	8.1	20	5.3	4
Newspaper	6.1	13	4	10	1.5	2	1.1	2
Ledger	10.8	25	17	30	1.9	5	2.3	2
Computer printouts	0	0	0	0	0	0	0	0
Other paper	7.5	23	20.2	42	44.5	85	18.4	30
HDPE containers	0	0	3.6	15	1.2	5	8.4	20
PET containers	0	0	0	0	0.1	1	0.1	1
Film plastics	11	35	4.3	40	5.8	40	4.5	15
Other plastics	6.2	15	0.6	1	2	2	8.5	17
PVC	0	0	0	0	0	0	0	0
Polystyrene	1.2	15	2.7	20	3.4	25	3.5	35
Refillable glass	0	0	0	0	0	0	0	0
CA redemption glass	0.8	0.5	0	0	0	0	3.6	2
Other recyclable glass	0.4	0.5	0	0	0	0	2.5	5
Other nonrecyclable glass	0	0	0	0	0	0	3	6
Aluminum cans	0.2	1	0.5	2	0.5	1	0.7	2
Bi-metal containers	0	0	0	0	0	0	0	0
Ferrous metals	0.2	0.5	6.2	5	3.9	5	46.1	30
Nonferrous metals	3.6	10	0.1	0.5	2.1	10	4.7	11
White goods	0	0	0	0	0	0	0	0
Other metals	0	0	0	0	0	0	0	0
Yard waste	0	0	0	0	77	45	0.6	1
Food waste	25.8	18	13.1	7	2.1	7	23.4	10
Tires and rubber	0	0	0.7	0.5	0.9	1	18.2	20
Wood	1.1	1	0	0	21.1	20	26.7	30
Crop residues	0	0	0	0	0	0	0	0
Diapers	0	0	0.2	0.5	1.2	4	0.8	1
Manure	0	0	0	0	48.6	50	0	0
Textiles and leather	18.1	20	11.9	25.5	22.2	30	0	0
Misc. other organics	0	0	5.8	0.8	12.2	15	4.4	2
Inert solids	0	0	0	0	1.2	1	0	0
Hazardous waste	0	0	0	0	0.1	1	2.5	5
Ash	0	0	0	0	0	0	0	0
Sewage sludge	0	0	0	0	0	0	0	0
Industrial sludge	0	0	0	0	0	0	0	0
Asbestos	0	0	0	0	0	0	0	0
Auto shredder	0	0	0	0	0	0	0	0
Auto bodies	0	0	0	0	0	0	0	0
Other special waste	0	0	0	0	0	0	0	0

Unincorporated Los Angeles County Field Sorting Data

CITY	Unincorp. LA County		Unincorp. LA County		Unincorp. LA County		Unincorp. LA County	
SAMPLE TYPE	Commercial		Commercial		Commercial		Commercial	
SAMPLE DATE	2/12/91		2/13/91		2/13/91		2/15/91	
SAMPLE NUMBER	F32-210		F32-237		F32-238		F32-267	
SAMPLE LOCATION	Spadra		Spadra		Spadra		BKK	
TOTAL SAMPLE WEIGHT (lbs)	217.4		190.5		186.2		144.9	
	WT (lbs)	VOL (gals)	WT (lbs)	VOL (gals)	WT (lbs)	VOL (gals)	WT (lbs)	VOL (gals)
Corrugated containers	7.8	35	1.4	16	3.3	10	11.9	20
Mixed paper	8.8	17	4.3	12	19.7	40	16.8	27
Newspaper	2.4	5	33.2	51	0	0	15.9	13
Ledger	21.2	35	27.3	65	26.4	65	2.9	10
Computer printouts	0	0	0	0	0	0	0	0
Other paper	22.4	55	41.4	60	70.3	100	32.5	30
HDPE containers	6.5	20	0.6	5	1.2	2	5.3	20
PET containers	0.5	2	0	0	0.2	1	0.6	1
Film plastics	3.7	30	3.4	45	5.9	50	7.4	40
Other plastics	0.7	2	1.1	2	6	41	0.5	1
PVC	0	0	0	0	0	0	0	0
Polystyrene	2.5	30	0.5	10	0.8	20	2.9	20
Refillable glass	0	0	0	0	0	0	0	0
CA redemption glass	0	0	0	0	5.5	5	0.5	1
Other recyclable glass	0	0	0.2	1	6.2	2	2.3	2
Other nonrecyclable glass	0.7	1	0	0	3.6	5	0	0
Aluminum cans	0.8	1	0.8	1	0	0	0.6	2
Bi-metal containers	0	0	0	0	0	0	0	0
Ferrous metals	35.5	50	7.5	15	1.1	2	1.9	5
Nonferrous metals	0	0	0	0	0.1	1	0.2	1
White goods	0	0	0	0	0	0	0	0
Other metals	0	0	0	0	0	0	0	0
Yard waste	0	0	0	0	0	0	0.4	1
Food waste	26.7	20	44.8	40	0	0	20.6	15
Tires and rubber	0.8	1	0	0	0.3	1	0	0
Wood	21.7	28	10.7	25	18.1	20	11	20
Crop residues	0	0	0	0	0	0	0	0
Diapers	2.6	5	0	0	0.5	5	0.3	1
Manure	22.2	20	0	0	0	0	0	0
Textiles and leather	8.4	20	9	20	12.6	25	1.7	5
Misc. other organics	10.3	15	2.7	5	2.5	1	8.7	8
Inert solids	3.6	12	0	0	1.2	2	0	0
Hazardous waste	7.6	21	1.6	1	0.7	1	0	0
Ash	0	0	0	0	0	0	0	0
Sewage sludge	0	0	0	0	0	0	0	0
Industrial sludge	0	0	0	0	0	0	0	0
Asbestos	0	0	0	0	0	0	0	0
Auto shredder	0	0	0	0	0	0	0	0
Auto bodies	0	0	0	0	0	0	0	0
Other special waste	0	0	0	0	0	0	0	0

Unincorporated Los Angeles County Field Sorting Data

CITY	Unincorp. LA County		Unincorp. LA County		Unincorp. LA County		Unincorp. LA County	
SAMPLE TYPE	Commercial		Commercial		Commercial		Residential	
SAMPLE DATE	2/15/91		2/15/91		2/15/91		2/6/91	
SAMPLE NUMBER	F32-268		F32-269		F32-271		F32-115	
SAMPLE LOCATION	BKK		BKK		BKK		BKK	
TOTAL SAMPLE WEIGHT (lbs)	156.6		179.5		161.5		156.9	
	WT (lbs)	VOL (gals)	WT (lbs)	VOL (gals)	WT (lbs)	VOL (gals)	WT (lbs)	VOL (gals)
Corrugated containers	13.1	20	6.1	20	5.3	30	9.2	30
Mixed paper	9.8	15	17.7	40	25.1	40	11.6	25
Newspaper	8.9	15	0	0	1.1	4	0.2	0.5
Ledger	1.1	2	8.3	20	24.2	20	0	0
Computer printouts	0	0	0	0	0	0	0	0
Other paper	20.6	35	23.8	45	30.1	45	16.8	40
HDPE containers	2.1	10	1.1	2	1.3	5	4.3	4
PET containers	0.7	2	0.3	0	1.4	8	1.2	4
Film plastics	6	20	4.5	20	3	35	6.9	35
Other plastics	4	10	1.6	5	0.7	3	1.9	4
PVC	0	0	0	0	0	0	0	0
Polystyrene	4.6	15	12.7	45	2.7	21	3.7	20
Refillable glass	0	0	0	0	0	0	0	0
CA redemption glass	3.2	1	2.3	1	0.4	0.5	0	0
Other recyclable glass	0.5	0.5	4	1	1.6	1	4.5	1
Other nonrecyclable glass	1.8	1	0.9	1	0	0	0.4	0.5
Aluminum cans	0.3	1	0.4	2	0.4	1	0.3	1
Bi-metal containers	0	0	0	0	0	0	0	0
Ferrous metals	5	10	2.2	5	1.5	1	2.5	5
Nonferrous metals	0.1	0	0.2	1	0	0	0.3	0.5
White goods	0	0	0	0	0	0	0	0
Other metals	0	0	0	0	0	0	0	0
Yard waste	0	0	0	0	0	0	40.6	53
Food waste	64.2	30	63.5	35	28.7	13	30.8	17
Tires and rubber	0.8	3	11.9	20	15.3	15	0	0
Wood	8.3	20	12.9	20	12.5	20	0.1	0.5
Crop residues	0	0	0	0	0	0	0	0
Diapers	0	0	0.3	0.5	0	0	6.9	6
Manure	0	0	0	0	0	0	0	0
Textiles and leather	0.6	1	0	0	0.1	1	0.3	0.5
Misc. other organics	0.5	1	4.5	3	0.1	0	14.1	8
Inert solids	0	0	0	0	0	0	0	0
Hazardous waste	0.4	1	0.3	0	6	0	0.3	0.5
Ash	0	0	0	0	0	0	0	0
Sewage sludge	0	0	0	0	0	0	0	0
Industrial sludge	0	0	0	0	0	0	0	0
Asbestos	0	0	0	0	0	0	0	0
Auto shredder	0	0	0	0	0	0	0	0
Auto bodies	0	0	0	0	0	0	0	0
Other special waste	0	0	0	0	0	0	0	0

Unincorporated Los Angeles County Field Sorting Data

CITY	Unincorp. LA County		Unincorp. LA County		Unincorp. LA County		Unincorp. LA County	
SAMPLE TYPE	Residential		Residential		Residential		Residential	
SAMPLE DATE	2/6/91		2/6/91		2/6/91		2/6/91	
SAMPLE NUMBER	F32-116		F32-117		F32-118		F32-119	
SAMPLE LOCATION	BKK		BKK		BKK		BKK	
TOTAL SAMPLE WEIGHT (lbs)	193		220.1		168.5		182.1	
	WT (lbs)	VOL (gals)	WT (lbs)	VOL (gals)	WT (lbs)	VOL (gals)	WT (lbs)	VOL (gals)
Corrugated containers	5.6	25	2.3	10	3.5	18	4.9	20
Mixed paper	12	25	14.6	21	24.4	30	24.5	25
Newspaper	3	10	36.9	20	3.4	2.5	8	13
Ledger	2.8	5	19.8	20	1.6	3	0.8	0.5
Computer printouts	0	0	0	0	0	0	0	0
Other paper	21.3	38	23.9	37	22.6	40	28.2	40
HDPE containers	1.5	12	1.8	10	0.9	1	3	5
PET containers	1	3	0.5	2	0.2	0.5	0	0
Film plastics	7.4	33	5.9	20	5.7	30	9.5	35
Other plastics	1.8	5	1.8	7	0.6	2	0.9	1
PVC	0	0	0	0	0	0	0	0
Polystyrene	2.9	15	1.1	10	1	5	23	20
Refillable glass	0	0	0	0	0	0	0	0
CA redemption glass	1.3	2	1.4	0.5	1.4	1	0	0
Other recyclable glass	3.5	2	6.5	1	2.3	1.5	1.9	1
Other nonrecyclable glass	0.1	0	10.1	1	0	0	1.3	1
Aluminum cans	0.1	5	0.2	1	0.6	1	0.3	1
Bi-metal containers	0	0	0	0	0	0	0	0
Ferrous metals	2.6	3	4.4	8.5	2.9	5	2.8	5
Nonferrous metals	0.3	1	0	0	0.5	0.5	0.5	0.5
White goods	0	0	0	0	0	0	0	0
Other metals	0	0	0	0	0	0	0	0
Yard waste	49.5	70	24.5	45	49	25	26	25
Food waste	43.7	25	47.3	27	28.1	28	29.6	14
Tires and rubber	0	0	0	0	0	0	0.3	0
Wood	0.4	0	0	0	0	0	0.3	0.5
Crop residues	0	0	0	0	0	0	0	0
Diapers	1.7	5	11.2	10	0	0	5.1	10
Manure	0	0	0	0	6.9	10	0	0
Textiles and leather	5.8	10	4.8	15	0.1	0.5	3.1	8
Misc. other organics	0.9	1	0	0	11.2	10	7.8	3
Inert solids	23.3	10	0	0	0	0	0.1	0
Hazardous waste	0.5	0	1.1	0	1.6	1	0.7	0
Ash	0	0	0	0	0	0	0	0
Sewage sludge	0	0	0	0	0	0	0	0
Industrial sludge	0	0	0	0	0	0	0	0
Asbestos	0	0	0	0	0	0	0	0
Auto shredder	0	0	0	0	0	0	0	0
Auto bodies	0	0	0	0	0	0	0	0
Other special waste	0	0	0	0	0	0	0	0

Unincorporated Los Angeles County Field Sorting Data

CITY	Unincorp. LA County		Unincorp. LA County		Unincorp. LA County		Unincorp. LA County	
SAMPLE TYPE	Residential		Residential		Residential		Residential	
SAMPLE DATE	2/6/91		2/6/91		2/6/91		2/6/91	
SAMPLE NUMBER	F32-120		F32-121		F32-132		F32-133	
SAMPLE LOCATION	BKK		BKK		Spadra		Spadra	
TOTAL SAMPLE WEIGHT (lbs)	178.6		214.4		221		218.7	
	WT (lbs)	VOL (gals)	WT (lbs)	VOL (gals)	WT (lbs)	VOL (gals)	WT (lbs)	VOL (gals)
Corrugated containers	1.2	5	8.6	20	13.4	40	7.1	30
Mixed paper	16.2	35	30.5	42	2.4	6	5.7	10
Newspaper	5.8	13	2.5	5	5	5	4.9	10
Ledger	0.8	2	0.4	1	0.2	1	0	0
Computer printouts	0	0	0	0	0	0	0	0
Other paper	23.5	37	29.9	40	33.2	55	13.5	30
HDPE containers	2.7	10	2.2	15	2.8	10	1.5	5
PET containers	1.3	5	0.9	5	1.2	2	0.6	2
Film plastics	6.5	30	8.2	40	5.9	30	4.6	30
Other plastics	0.7	0.5	2.2	4	2.3	6	2.8	7
PVC	0	0	0	0	0	0	0	0
Polystyrene	1.2	5	3.2	20	1.7	12	0.5	4
Refillable glass	0	0	0	0	0	0	0	0
CA redemption glass	1.6	1	0.5	0.5	4.5	1	0	0
Other recyclable glass	4.2	1.5	6.1	2	8	2	7.6	5
Other nonrecyclable glass	0	0	0.1	0.5	0	0	0.2	1
Aluminum cans	0.5	1	0.5	1	0.3	1	0.2	1
Bi-metal containers	0	0	0	0	0	0	0	0
Ferrous metals	5	10	6.6	10	8.9	10	6.2	15
Nonferrous metals	0.3	0.5	2	1	0.1	0.5	0.1	1
White goods	0	0	0	0	0	0	0	0
Other metals	0	0	0	0	0	0	0	0
Yard waste	55.5	75	37.9	45	55.9	55	81.6	90
Food waste	36.7	21	35	17	25.5	15	59.1	25
Tires and rubber	0	0	0	0	1.2	2	0	0
Wood	0	0	5	10	0	0	3.6	2
Crop residues	0	0	0	0	0	0	0	0
Diapers	10.2	6	23.6	12	25.3	14	6.5	5
Manure	0	0	0	0	0	0	0	0
Textiles and leather	0.4	0.5	0.4	0.5	1.2	5	2.2	4
Misc. other organics	1.8	1	7.3	4	14.9	10	9.4	10
Inert solids	0	0	0	0	6.6	2	0	0
Hazardous waste	2.5	0.5	0.8	1	0.5	0.5	0.8	0.5
Ash	0	0	0	0	0	0	0	0
Sewage sludge	0	0	0	0	0	0	0	0
Industrial sludge	0	0	0	0	0	0	0	0
Asbestos	0	0	0	0	0	0	0	0
Auto shredder	0	0	0	0	0	0	0	0
Auto bodies	0	0	0	0	0	0	0	0
Other special waste	0	0	0	0	0	0	0	0

Unincorporated Los Angeles County Field Sorting Data

CITY	Unincorp. LA County		Unincorp. LA County	
SAMPLE TYPE	Residential		Residential	
SAMPLE DATE	2/6/91		2/20/91	
SAMPLE NUMBER	F32-134		F32-313	
SAMPLE LOCATION	Spadra		Puente Hills	
TOTAL SAMPLE WEIGHT (lbs)	223.9		169.7	
	WT (lbs)	VOL (gals)	WT (lbs)	VOL (gals)
Corrugated containers	2	11	5.8	15
Mixed paper	4.6	6	22.5	35
Newspaper	0.8	1	24.2	22
Ledger	0	0	4.4	2
Computer printouts	0	0	0	0
Other paper	31.5	50	20.7	35
HDPE containers	4.1	15	2	15
PET containers	0.2	2	0.5	2
Film plastics	6.2	40	5.2	25
Other plastics	0.3	2.5	2.2	5
PVC	0	0	0	0
Polystyrene	1.3	20	0.9	4
Refillable glass	0	0	0	0
CA redemption glass	0.8	1	1	1
Other recyclable glass	8	2	1.3	1
Other nonrecyclable glass	0	0	0.1	1
Aluminum cans	0.6	2	0.8	2
Bi-metal containers	0	0	0	0
Ferrous metals	5.4	7	5.7	10
Nonferrous metals	0.5	1	0.3	1
White goods	0	0	0	0
Other metals	0	0	0	0
Yard waste	88.2	85	27.2	20
Food waste	43.2	30	28.5	25
Tires and rubber	0	0	5.1	10
Wood	0	0	0.1	0
Crop residues	0	0	0	0
Diapers	6	5	4.4	5
Manure	0	0	0	0
Textiles and leather	2	10	3.3	3
Misc. other organics	15.1	10	3.5	3
Inert solids	1.1	1	0	0
Hazardous waste	2	1	0	0
Ash	0	0	0	0
Sewage sludge	0	0	0	0
Industrial sludge	0	0	0	0
Asbestos	0	0	0	0
Auto shredder	0	0	0	0
Auto bodies	0	0	0	0
Other special waste	0	0	0	0

APPENDIX C-4

STATISTICAL ANALYSES EQUATIONS

Statistical Analyses Equations

1. Sample Mean ($\bar{x}$)

$$\bar{x} = \frac{\sum x_i}{n}$$

Where x is the sample weight or volume and n is the total number of samples taken in the population or subpopulation sampled.

2. Variance (s^2)

$$s = \sqrt{\frac{\sum (x_i - x)^2}{(n-1)}}$$

3. Confidence levels for Sample Mean

$$\bar{x} \pm (t_{n-1}) \left(\frac{s}{\sqrt{n}}\right)$$

Where t_{n-1} is the value taken from the students t-test and where (n-1) is the degrees of freedom for the students t-test for a 90% confidence level.

APPENDIX C-5

WASTE DISPOSAL COMPOSITION FOR EACH WORKING GROUP

Group 3: South Bay Area Integrated
Waste Management Working Group

2.2.3 Solid Waste Disposal Composition

A field sampling program was designed to characterize the composition of solid waste currently being disposed by waste generators within the Unincorporated County.

Field data for the Unincorporated County, with the exception of marine waste, was comprised of data from a group of cities in the Working Group that are similar in demographics and land use.

An average of the aggregate data from these cities was used to produce the composition for residential, commercial and industrial sources for the Unincorporated County. These data sheets are presented in Appendix B.

Marine waste composition was comprised of two samples, one taken from a harbor and another taken from the beach. This data sheet is presented in Appendix B.

Sampling procedures used to obtain the aggregate data are described below.

Sample Size and Weight

A sample size formula for percentages, known as the Klee and Carruth method, was used to determine the number of samples needed for the residential, commercial and industrial waste. This formula is referenced in Appendix 1 of Article 6.1, Chapter 9, Title 14 of the California Code of Regulations. The samples size formula is used when the values being considered are percentages. The formula assumes that the underlying distribution is binomial. The computer-generated sample size estimates, listed in Table 2-4, use a precision value of 0.04 and a standard deviation of 0.10 for residential waste. For the purpose of this study, it was assumed that the single largest waste category or type for the residential source would be either paper or yard waste. Sample sizes for commercial and industrial sources were generated using a precision of 0.05 and a standard deviation of 0.20 (see Table 2-5). The percent composition of any one of these waste types or categories was expected to be in the

range of 35%. Therefore, based on Table 2-4 and 2-5, four samples of residential waste and eleven samples each of commercial and industrial wastes were selected. The formula is:

$$n = \frac{[Z(1-\alpha/2)]^2 S^2}{2[\arcsin\sqrt{p} - \arcsin\sqrt{(p+0.02)}]^2}$$

where: n = sample size

$Z(1-\alpha/2)$ = standard normal variable that corresponds to the desired confidence level

S = standard deviation of the sample

p = percentage measurement

Table 2-4
Sample Sizes for Residential Source
(Precision = 0.04 and Standard Deviation of Percentages = 0.10)

Percent Composition	Sample Number
0.05	2
0.10	3
0.15	4
0.20	5
0.25	5
0.30	6
0.35	6
0.40	6
0.45	7
0.50	7
0.55	6
0.60	6
0.65	6
0.70	5
0.75	5
0.80	4
0.85	3
0.90	2
0.95	1

Table 2-5

Sample Size for Commercial/Industrial Source
(Precision = 0.05 and Standard Deviation of Percentages = 0.20)

Percent Composition	Sample Number
0.05	3
0.10	5
0.15	7
0.20	8
0.25	9
0.30	10
0.35	11
0.40	11
0.45	11
0.50	11
0.55	11
0.60	11
0.65	10
0.70	9
0.75	8
0.80	7
0.85	5
0.90	3
0.95	1

A minimum target weight of 200 pounds per sample was set for the sampling program. This value reflects the conclusions of the Klee and Carruth method which shows that there are no significant differences in waste composition results if samples weights are generally 200 pounds or larger.

2.2.4 Field Sampling

Sampling was conducted over a 15-day period from May 2 through May 22, 1991. Approximately 29 samples per city (total of 172) were collected, sorted, and weighed. Included were samples from a harbor and a beach.

Samples were transported to a central sorting station provided by a local South Bay hauler.

2.2.5 Field Sorting

Each sample was emptied onto a sorting table, where it was manually sorted into 8 waste categories and 36 waste types (see Table 2-6). The wastes were sorted directly into volumetrically marked containers so that sample volumes could be determined. After each sample was sorted, each waste type was weighed on an electronic scale to an accuracy of 0.10 pound. The waste type, weights, and volumes, along with other pertinent data about the sample, were recorded on a field sorting data sheet. The field data sheet and field data are presented in Appendix B.

2.2.6 Data Analysis

The field data were entered into a computer database and were tabulated by waste source. The following statistical analyses were conducted for the residential, commercial, and industrial data:

- Sample mean
- Standard deviation
- 90% confidence interval around the mean

The equations used to perform the calculations are provided in Appendix B. The calculations were performed by computer. The results of the residential, commercial, industrial, and marine waste sorting activities are presented in Tables 2-6 through 2-9. Data that have been broken down into the smaller subgroups are presented in Appendix B.

2.2.7 Summary of Results

The waste composition data were combined with the waste quantity data from private haulers to obtain an overall waste disposal composition profile (based on weight) for residential, commercial, and industrial generators in the Unincorporated County, and marine waste. The overall waste disposal quantity and composition data are presented in Tables 2-10 and 2-11.

2.3 SOLID WASTE DIVERSION STUDY

A solid waste diversion study was conducted for the unincorporated County to characterize the quantity and types of waste that are currently being diverted from disposal by generators within the jurisdiction. The study relied on written and telephone survey data provided by local recyclers and waste haulers. Businesses were not contacted for recycling because a list of businesses operating in the Unincorporated County was not available.

2.3.1 Diversion Study Approach

The waste diversion study targeted waste being diverted by residential, commercial, and industrial sources through recyclers or haulers. To obtain information about existing diversion, haulers and recyclers were contacted by surveys, which are described in Section 2.3.2. Existing residential, commercial, and industrial diversion programs are described in the following sections.

2.3.1.1 Existing Residential Diversion Program

In April 1989, the Los Angeles County Board of Supervisors approved the implementation of a recycling program for all single-family residences in five targeted communities within the unincorporated areas of Los Angeles County. One of these areas is known as Lennox, which is within the study area of this project.

Table 2-6
COUNTY OF LOS ANGELES UNINCORPORATED AREA
Residential Waste Sorting Field Data

WASTE TYPE	WEIGHT (lbs)			COMPOSITION (%)		
	AVERAGE WT	WT STD DEV	WT CONFID INTERVAL	AVERAGE PERCENT WT	PERCENT WT STD DEV	PERCENT WT CONFID INTERVAL
Corrugated containers	4.6	3.3	3.9	2.9	2.0	2.3
Mixed paper	11.9	3.8	4.5	7.7	3.2	3.7
Newspaper	6.5	4.7	5.6	4.2	3.6	4.2
Ledger	1.8	2.2	2.7	1.1	1.2	1.4
Computer printouts	0.0	0.0	0.0	0.0	0.0	0.0
Other paper	13.1	5.0	5.9	8.7	3.5	4.1
TOTAL PAPER	37.8			24.6		
HDPE containers	1.7	1.2	1.4	1.1	0.7	0.9
PET containers	0.5	0.4	0.5	0.3	0.3	0.3
Film plastics	3.7	1.7	1.9	2.4	1.1	1.3
Other plastics	2.6	2.0	2.3	1.8	1.6	1.8
Polystyrene	1.4	1.2	1.4	1.0	0.9	1.1
PVC	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL PLASTICS	9.9			6.6		
Refillable glass	0.0	0.0	0.0	0.0	0.0	0.0
CA redemption glass	3.1	4.4	5.2	2.0	2.7	3.2
Other recyclable glass	6.3	4.0	4.7	4.3	3.6	4.3
Other nonrecyclable glass	0.4	0.6	0.7	0.3	0.4	0.5
TOTAL GLASS	9.8			6.6		
Aluminum cans	0.2	0.3	0.3	0.1	0.2	0.2
Bi-metal containers	0.0	0.0	0.0	0.0	0.0	0.0
Ferrous metals	4.0	1.8	2.1	2.5	1.0	1.2
Nonferrous metals	0.5	0.6	0.7	0.3	0.3	0.4
White goods	0.0	0.0	0.0	0.0	0.0	0.0
Other metals	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL METALS	4.7			2.9		
Yard waste	47.7	30.8	36.2	27.3	17.4	20.5
TOTAL YARD WASTE	47.7			27.3		
Food waste	23.1	21.4	25.2	14.0	11.3	13.3
Tires and rubber	0.1	0.2	0.2	0.1	0.1	0.1
Wood	2.4	4.0	4.7	1.3	2.2	2.6
Crop residues	0.0	0.0	0.0	0.0	0.0	0.0
Manure	0.4	0.8	1.0	0.2	0.5	0.6
Diapers	3.9	5.0	5.9	2.7	3.2	3.8
Textiles and leather	4.0	4.0	4.8	2.8	3.1	3.7
Misc. other organics	6.1	5.0	5.9	4.2	3.4	4.0
TOTAL OTHER ORGANICS	40.1			28.3		
Inert solids	11.4	18.3	21.5	6.5	9.5	11.2
Hazardous waste	0.1	0.1	0.2	0.1	0.1	0.1
TOTAL OTHER WASTES	11.5			6.6		
Ash	0.0	0.0	0.0	0.0	0.0	0.0
Sewage sludge	0.0	0.0	0.0	0.0	0.0	0.0
Industrial sludge	0.0	0.0	0.0	0.0	0.0	0.0
Asbestos	0.0	0.0	0.0	0.0	0.0	0.0
Auto shredder	0.0	0.0	0.0	0.0	0.0	0.0
Auto bodies	0.0	0.0	0.0	0.0	0.0	0.0
Other special waste	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL SPECIAL WASTES	0.0			0.0		
TOTAL ALL WASTES				100		

Table 2-7
COUNTY OF LOS ANGELES UNINCORPORATED AREA
Commercial Waste Sorting Field Data

WASTE TYPE	WEIGHT (lbs)			COMPOSITION (%)		
	AVERAGE WT	WT STD DEV	WT CONFID INTERVAL	AVERAGE PERCENT WT	PERCENT WT STD DEV	PERCENT WT CONFID INTERVAL
Corrugated containers	17.5	34.7	16.4	17.1	22.6	10.7
Mixed paper	6.7	9.1	4.3	9.8	12.8	6.0
Newspaper	4.7	5.7	2.7	6.8	8.8	4.1
Ledger	3.4	5.4	3.0	4.3	7.4	3.5
Computer printouts	0.0	0.0	0.0	0.0	0.0	0.0
Other paper	8.4	7.7	3.6	10.0	8.3	3.9
TOTAL PAPER	40.7			48.0		
HDPE containers	0.6	0.9	0.4	0.9	1.4	0.6
PET containers	0.1	0.2	0.1	0.1	0.3	0.1
Film plastics	2.6	2.3	1.1	3.4	3.3	1.5
Other plastics	1.0	1.5	0.7	1.2	1.8	0.9
Polystyrene	1.6	2.8	1.3	1.7	2.7	1.3
PVC	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL PLASTICS	5.9			7.3		
Refillable glass	0.0	0.1	0.1	0.0	0.2	0.1
CA redemption glass	1.2	2.0	0.9	1.7	2.8	1.3
Other recyclable glass	1.2	1.9	0.9	2.0	4.2	2.0
Other nonrecyclable glass	0.5	1.6	0.7	0.5	1.4	0.7
TOTAL GLASS	3.0			4.3		
Aluminum cans	0.3	0.4	0.2	0.4	0.6	0.2
Bi-metal containers	0.0	0.0	0.0	0.0	0.0	0.0
Ferrous metals	6.1	15.3	7.1	8.7	14.8	6.9
Nonferrous metals	0.2	0.4	0.2	0.4	0.8	0.4
White goods	0.0	0.0	0.0	0.0	0.0	0.0
Other metals	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL METALS	6.6			9.5		
Yard waste	4.7	10.6	5.0	16.8	14.5	6.8
TOTAL YARD WASTE	4.7			5.8		
Food waste	13.5	22.4	10.6	13.1	19.3	9.1
Tires and rubber	9.0	32.8	15.5	1.4	4.1	1.9
Wood	3.0	7.3	3.4	4.1	9.5	4.5
Crop residues	0.0	0.0	0.0	0.0	0.0	0.0
Manure	0.0	0.1	0.0	0.0	0.1	0.0
Diapers	0.2	0.5	0.2	0.2	0.6	0.3
Textiles and leather	6.9	25.9	11.5	2.1	5.9	2.7
Misc. other organics	2.1	3.1	1.5	2.5	3.9	1.8
TOTAL OTHER ORGANICS	34.7			23.4		
Inert solids	0.1	0.4	0.2	0.4	0.9	0.4
Hazardous waste	0.3	0.7	0.3	0.3	0.8	0.4
TOTAL OTHER WASTES	0.4			0.6		
Ash	0.0	0.0	0.0	0.0	0.0	0.0
Sewage sludge	0.0	0.0	0.0	0.0	0.0	0.0
Industrial sludge	0.0	0.0	0.0	0.0	0.0	0.0
Asbestos	0.0	0.0	0.0	0.0	0.0	0.0
Auto shredder	0.0	0.0	0.0	0.0	0.0	0.0
Auto bodies	0.0	0.0	0.0	0.0	0.0	0.0
Other special waste	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL SPECIAL WASTES	0.0			0.0		
TOTAL ALL WASTES				100		

Table 2-8
COUNTY OF LOS ANGELES UNINCORPORATED AREA
Industrial Waste Sorting Field Data

WASTE TYPE	WEIGHT (lbs)			COMPOSITION (%)		
	AVERAGE WT	WT STD DEV	WT CONFID INTERVAL	AVERAGE PERCENT WT	PERCENT WT STD DEV	PERCENT WT CONFID INTERVAL
Corrugated containers	10.0	9.1	8.1	13.4	15.3	11.2
Mixed paper	6.2	9.8	6.9	7.4	9.4	6.1
Newspaper	5.2	8.4	8.4	4.8	7.8	6.5
Ledger	9.8	12.4	12.6	7.3	9.6	8.7
Computer printouts	0.0	0.0	0.0	0.0	0.0	0.0
Other paper	5.9	6.0	4.9	8.6	9.6	6.5
TOTAL PAPER	37.1			41.6		
HDPE containers	0.4	0.8	0.6	0.6	1.4	0.8
PET containers	0.3	0.7	0.7	0.2	0.6	0.5
Film plastics	1.3	1.4	1.1	1.7	1.9	1.3
Other plastics	2.5	5.4	3.4	3.1	6.9	4.0
Polystyrene	1.0	1.5	1.3	1.7	2.7	2.2
PVC	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL PLASTICS	5.5			7.4		
Refillable glass	0.0	0.0	0.0	0.0	0.1	0.0
CA redemption glass	1.0	1.6	1.4	1.1	1.6	1.1
Other recyclable glass	1.2	2.3	2.2	2.4	5.2	4.1
Other nonrecyclable glass	11.5	37.1	20.7	4.5	13.8	7.8
TOTAL GLASS	13.7			8.0		
Aluminum cans	0.3	0.3	0.3	0.3	0.5	0.4
Bi-metal containers	0.0	0.0	0.0	0.0	0.0	0.0
Ferrous metals	5.8	10.9	7.5	4.9	9.0	5.9
Nonferrous metals	1.3	1.8	2.1	0.8	1.2	1.3
White goods	0.0	0.0	0.0	0.0	0.0	0.0
Other metals	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL METALS	7.3			6.1		
Yard waste	0.8	2.1	1.2	0.4	1.2	0.7
TOTAL YARD WASTE	0.8			0.4		
Food waste	5.0	12.2	7.9	3.2	6.4	5.3
Tires and rubber	0.1	0.3	0.2	0.2	0.5	0.3
Wood	17.1	29.5	20.0	18.1	28.2	18.1
Crop residues	0.0	0.0	0.0	0.0	0.0	0.0
Manure	0.0	0.0	0.0	0.0	0.0	0.0
Diapers	0.0	0.1	0.0	0.0	0.0	0.0
Textiles and leather	1.8	4.2	2.5	1.6	3.5	2.0
Misc. other organics	1.1	1.9	2.0	1.1	2.0	1.7
TOTAL OTHER ORGANICS	25.0			24.2		
Inert solids	58.6	181.5	108.1	11.6	24.9	19.8
Hazardous waste	0.8	1.7	1.7	0.6	1.4	1.3
TOTAL OTHER WASTES	59.4			12.2		
Ash	0.0	0.0	0.0	0.0	0.0	0.0
Sewage sludge	0.0	0.0	0.0	0.0	0.0	0.0
Industrial sludge	0.0	0.0	0.0	0.0	0.0	0.0
Asbestos	0.0	0.0	0.0	0.0	0.0	0.0
Auto shredder	0.0	0.0	0.0	0.0	0.0	0.0
Auto bodies	0.0	0.0	0.0	0.0	0.0	0.0
Other special waste	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL SPECIAL WASTES	0.0			0.0		
TOTAL ALL WASTES				100		

Table 2-9
COUNTY OF LOS ANGELES UNINCORPORATED
Marine Waste Sorting Field Data

WASTE TYPE 2 Samples	WEIGHT (lbs) AVERAGE WT	WT STD DEV	WT CONFID INTERVAL	COMPOSITION (%) AVERAGE PERCENT WT	PERCENT WT STD DEV	PERCENT WT CONFID INTERVAL
Corrugated containers	4.25	4.2	18.8	6.9	3	13.4
Mixed paper	8.45	4.8	20.5	16.9	3.1	13.8
Newspaper	5.6	7.4	33	7.5	8.6	38.4
Ledger	0	0	0	0	0	0
Computer printouts	0	0	0	0	0	0
Other paper	4.3	1.1	4.9	9.6	4.5	20.1
TOTAL PAPER	22.6			40.9		
HDPE containers	0.65	0.1	0.4	1.7	1.3	5.8
PET containers	0.05	0.1	0.4	0.2	0.3	1.3
Film plastics	2.25	1.5	6.7	4.3	0.2	0.9
Other plastics	1.15	1.6	7.1	1.4	2	8.9
Polystyrene	0.5	0.1	0.4	1.1	0.5	2.2
PVC	0	0	0	0	0	0
TOTAL PLASTICS	4.6			8.7		
Refillable glass	0	0	0	0	0	0
CA redemption glass	6.7	2.7	12.1	14.2	4.8	21.4
Other recyclable glass	6.45	0.8	3.5	16.5	12.9	57.6
Other nonrecyclable glass	0	0	0	0	0	0
TOTAL GLASS	13.15			30.7		
Aluminum cans	0.15	0.2	0.9	0.2	0.3	1.3
Bi-metal containers	0	0	0	0	0	0
Ferrous metals	0.5	0.7	1	0.6	0.9	4
Nonferrous metals	0.05	0.1	0.1	0.1	0.1	0.4
White goods	0	0	0	0	0	0
Other metals	0	0	0	0	0	0
TOTAL METALS	0.7			0.9		
Yard waste	2.65	3.7	16.5	3.3	4.7	0
TOTAL YARD WASTE	2.65			3.3		
Food waste	4.35	6	26.8	5.6	7.4	33
Tires and rubber	0.4	0.6	2.7	0.5	0.7	3.1
Wood	0.2	0.3	1.3	0.3	0.4	1.8
Crop residues	0	0	0	0	0	0
Diapers	1.3	1.8	8	4.8	6.7	29.9
Manure	0	0	0	0	0	0
Textiles and leather	2.05	2.9	12.9	2.6	3.6	16.1
Misc. other organics	0	0	0	0	0	0
TOTAL OTHER ORGANICS	8.3			13.8		
Inert solids	0	0	0	0	0	0
Hazardous waste	1.4	2	8.9	1.8	2.5	11.2
TOTAL OTHER WASTES	1.4			1.8		
Ash	0	0	0	0	0	0
Sewage sludge	0	0	0	0	0	0
Industrial sludge	0	0	0	0	0	0
Asbestos	0	0	0	0	0	0
Auto shredder	0	0	0	0	0	0
Auto bodies	0	0	0	0	0	0
Other special waste	0	0	0	0	0	0
TOTAL SPECIAL WASTES	0					
TOTAL ALL WASTES				100		

Note: Total may not add up to 100% due to rounding

Table 2-10
Disposal Quantities
County of Los Angeles Unincorporated Area

Waste Type	Res Waste Average Yearly Tons	Com Waste Average Yearly Tons	Ind Waste Average Yearly Tons	Marine Waste Average Yearly Tons	Total Annual Tons	
Corrugated containers	1,692.0	7,348.3	7,761.2	13.1		16,814.6
Mixed paper	4,511.1	4,236.1	4,298.5	26.2		13,072.0
Newspaper	2,462.2	2,931.5	2,758.0	17.4		8,169.1
Ledger	631.7	1,824.7	4,212.2	0.0		6,668.7
Other paper	5,050.4	4,283.4	5,002.6	13.3		14,349.8
TOTAL PAPER	**14,347.4**	**20,624.1**	**24,032.5**	**70.1**	**59,074.0**	
HDPE containers	652.1	370.4	361.3	2.1		1,385.9
PET containers	187.8	61.0	147.5	0.2		396.5
Film plastics	1,416.8	1,456.1	985.5	6.9		3,865.3
Other plastics	1,045.5	516.4	1,832.6	3.6		3,398.1
Polystyrene	570.3	742.3	1,000.0	1.6		2,314.2
TOTAL PLASTICS	**3,872.6**	**3,146.1**	**4,326.9**	**14.3**	**11,360.0**	
Refillable glass	0.0	17.3	12.0	0.0		29.3
CA redemption glass	1,183.1	728.3	614.4	27.8		2,553.6
Other recyclable glass	2,494.8	869.7	1,368.0	20.0		4,752.5
Other nonrecyclable glass	177.0	213.6	2,607.1	0.0		2,997.7
TOTAL GLASS	**3,854.9**	**1,828.8**	**4,601.6**	**47.8**	**10,333.1**	
Aluminum cans	88.4	151.0	186.9	0.5		426.8
Bi-metal containers	0.0	0.0	0.0	0.0		0.0
Ferrous metals	1,451.1	3,752.1	2,839.3	1.6		8,043.9
Nonferrous metals	178.0	168.3	470.9	0.2		817.4
White goods	0.0	0.0	0.0	0.0		0.0
Other metals	0.0	0.0	0.0	0.0		0.0
TOTAL METALS	**1,717.5**	**4,071.4**	**3,497.1**	**2.2**	**9,288.2**	
Yard waste	15,953.2	2,933.4	239.9	8.3		19,134.7
TOTAL YARD WASTE	**15,953.2**	**2,933.4**	**239.9**	**8.3**	**19,134.7**	
Food waste	8,152.7	5,625.7	1,825.0	13.5		15,616.8
Tires and rubber	57.1	577.2	108.2	1.2		743.7
Wood	767.2	1,748.2	10,480.1	0.7		12,996.2
Crop residues	0.0	0.0	0.0	0.0		0.0
Manure	135.5	11.1	0.0	4.0		150.5
Diapers	1,597.9	99.2	6.5	0.0		1,703.7
Textiles and leather	1,652.6	911.1	893.7	6.4		3,463.8
Other organics	2,445.8	1,097.6	665.1	0.0		4,208.6
TOTAL OTHER ORGANICS	**14,808.8**	**10,070.1**	**13,978.7**	**25.7**	**38,883.3**	
Inert solids	3,778.5	147.2	6,705.6	0.0		10,631.4
Hazardous waste	41.8	124.8	356.1	4.3		526.9
TOTAL OTHER WASTES	**3,820.3**	**272.0**	**7,061.7**	**4.3**	**11,158.3**	
Ash	0.0	0.0	0.0	0.0		0.0
Sewage sludge	0.0	0.0	0.0	0.0		0.0
Industrial sludge	0.0	0.0	0.0	0.0		0.0
Asbestos	0.0	0.0	0.0	0.0		0.0
Auto shredder	0.0	0.0	0.0	0.0		0.0
Auto bodies	0.0	0.0	0.0	0.0		0.0
Other special waste	0.0	0.0	0.0	0.0		0.0
TOTAL SPECIAL WASTES	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	
TOTAL ALL WASTE	**58,374.6**	**42,945.9**	**57,738.4**	**172.7**	**159,231.7**	
EQUIVALENT VOLUME	**97,291.1**	**71,576.5**	**96,230.7**	**287.9**	**265,386.2**	

Note: Weight to volume ratio of 1200 pounds per cubic yard used for conversion

Note: Totals may not add up due to rounding

Group 4: East San Gabriel Valley Area
Integrated Waste Management Working Group

(i.e., from within the County), and to be statistically representative. Secondary considerations were the cost of mobilizing a sorting station at various locations and flexibility in working with collection and landfill crews to obtain the necessary samples.

2.2.3.1 Sample Size and Weight

A sample size formula for percentages, known as the Klee and Carruth method, was used to determine sample size. This formula is referenced in Appendix 1 of Article 6.1, Chapter 9, Title 14 of the California Code of Regulations. The sample size formula is used when measurements are percentages. The formula assumes that the underlying distribution is binomial. The computer-generated sample size estimates listed in Table 2-4 use a precision value of 0.05 and deviation of 0.20. For the purpose of this study, it was assumed that the single largest waste category or type would be either paper, yard waste, or other organics. The percent composition of any one of these waste types or categories was expected to be in the range of 35%. Therefore, based on Table 2-4, 11 samples were selected. The formula is:

$$n = \frac{[Z(1-\alpha/2)]^2 S^2}{2[\arcsin\sqrt{p} - \arcsin\sqrt{(p+0.02)}]^2}$$

where: n = sample size

$Z(1-\alpha/2)$ = standard normal variable that corresponds to the desired confidence level

S = standard deviation of the sample

p = percentage measurement

Table 2-4

Sample Sizes for Composition Estimates (Precision = 0.05)

Percent Composition	Standard Deviations of Percentages 0.20
0.05	3
0.10	5
0.15	7
0.20	8
0.25	9
0.30	10
0.35	11
0.40	11
0.45	11
0.50	11
0.55	11
0.60	11
0.65	10
0.70	9
0.75	8
0.80	7
0.85	5
0.90	3
0.95	1

Based on these calculations, 11 samples per source of generation were to be collected during the sorting event.

The waste-sorting event was conducted in January and February. Due to time constraints imposed by the regulatory deadlines, a spring sort was not possible.

A minimum target weight of 200 pounds per sample was set for the sampling program. This value reflects the conclusions of Klee and Carruth that there are no significant differences in waste composition results if sample weights are generally 200 pounds or larger.

2.2.3.2 Route and Truck Selection

Front-loader routes known to generally service residential accounts were selected for residential sampling. These routes were each assigned a unique number. Using a random numbers table, trucks from these routes were selected for sampling. The driver of the selected truck deposited his

load in a special area reserved for the study. Similar to the residential routes, the commercial routes were selected for sampling using a random numbers table. In addition, visual inspections of industrial roll-off vehicles were made to determine industrial waste composition.

2.2.4 Field Sampling and Sorting

Field sampling was conducted over a total of 25 days in 1990: January 21 through February 28. Field sampling took place at the BKK, Spadra, and Puente Hills landfills. As shown in Table 2-5, a total of 35 samples were evaluated.

Table 2-5

Field Sampling Summary

Residential Samples	Commercial Samples	Industrial Samples	Total
11	11	13	35

During the sampling events, the preselected loads were directed to the designated sampling area. After each load was deposited, a two-by-eight grid was superimposed over the waste pile. Approximately 200 pounds were extracted from two of the sixteen grids to comprise each sample. The sampled grids were selected using a random numbers table.

Each sample was brought to a sorting table, where it was manually separated into the various types. The wastes were sorted directly into 17-gallon baskets that were volumetrically marked in increments so that sample volumes could be determined. After each sample was sorted, each waste type was weighed on an electronic scale to an accuracy of 0.10 pound. The waste type weights and volumes, along with other pertinent data about the sample, were recorded on a waste sorting data sheet. The field sorting sheet, field data, and conversion factors are presented in Appendix B.

2.2.5 Data Analysis

The field data were entered into a computer database and were tabulated by waste source. The following statistical analyses were conducted on the weighed samples:

- Sample mean
- Standard deviation
- 90% confidence interval around the mean

The equations used to perform the calculations are provided in Appendix B. The calculations were performed by computer. The results are presented in Tables 2-6 through 2-8. As would be expected of industrial waste samples, a high variability among average weight percents of waste types was found.

2.2.6 Summary of Results

The waste composition data were combined with the waste quantity data from private haulers to obtain an overall waste disposal composition profile for residential, commercial, and industrial generators in the County. The overall waste disposal composition data are presented in Table 2-9.

2.3 SOLID WASTE DIVERSION STUDY

A solid waste diversion study was conducted for the County of Los Angeles to characterize the quantity and type of wastes that are currently being diverted from disposal by generators within the jurisdiction. The study relied on written and telephone survey data provided by local recyclers, waste haulers, and generators to estimate the current diversion rate.

2.3.1 Diversion Study Approach

The waste diversion study was designed to target the three main sources of waste generation within the County: residential, commercial, and industrial. The study methodology was based on an understanding of the existing diversion programs, which are summarized below. Complete descriptions of the existing waste diversion programs are provided in subsequent sections of this SRR element under each program component (e.g., Source Reduction Component, Recycling Component, etc.). Once

Table 2-6

Unincorporated Los Angeles County
Residential Waste Sorting Field Data

WASTE TYPE 11 Samples	WEIGHT (lbs)			COMPOSITION (%)		
	AVERAGE WT	WT STD DEV	WT CONFID INTERVAL	AVERAGE PERCENT WT	PERCENT WT STD DEV	PERCENT WT CONFID INTERVAL
Corrugated containers	5.8	3.6	2	3	1.8	1
Mixed paper	15.4	9.2	5	8.2	5.1	2.8
Newspaper	8.6	11.4	6.2	4.4	5.7	3.1
Ledger	2.8	5.8	3.2	1.4	2.7	1.5
Computer printouts	0	0	0	0	0	0
Other paper	24.1	6.1	3.3	12.4	2.6	1.4
TOTAL PAPER	56.7			29.4		
HDPE containers	2.4	1.1	0.6	1.3	0.6	0.3
PET containers	0.7	0.5	0.3	0.4	0.3	0.2
Film plastics	6.5	1.4	0.8	3.4	0.9	0.5
Other plastics	1.6	0.8	0.4	0.8	0.4	0.2
PVC	0	0	0	0	0	0
Polystyrene	3.7	6.5	3.6	2	3.6	2
TOTAL PLASTICS	14.9			7.9		
Refillable glass	0	0	0	0	0	0
CA redemption glass	1.1	1.8	0.7	0.6	0.6	0.3
Other recyclable glass	4.9	2.5	1.4	2.4	1	0.5
Other nonrecyclable glass	1.1	3	1.6	0.5	1.4	0.8
TOTAL GLASS	7.1			3.5		
Aluminum cans	0.4	0.2	0.1	0.2	0.1	0.1
Bi-metal containers	0	0	0	0	0	0
Ferrous metals	4.8	2	1.1	2.4	0.9	0.5
Nonferrous metals	0.4	0.5	0.3	0.2	0.3	0.2
White goods	0	0	0	0	0	0
Other metals	0	0	0	0	0	0
TOTAL METALS	5.6			2.8		
Yard waste	48.7	21.2	11.6	24.8	9.2	5
TOTAL YARD WASTE	48.7			24.8		
Food waste	37	10.3	5.6	18.9	4.1	2.2
Tires and rubber	0.6	1.5	0.8	0.3	0.9	0.5
Wood	0.9	1.7	0.9	0.4	0.8	0.4
Crop residues	0	0	0	0	0	0
Diapers	9.2	8.2	4.5	4.5	3.7	2
Manure	0.6	2.1	1.1	0.4	1.2	0.7
Textiles and leather	2.1	1.9	1	1.1	1	0.5
Misc. other organics	7.8	5.7	3.1	4.1	3	1.6
TOTAL OTHER ORGANICS	58.2			29.7		
Inert solids	2.8	7.1	3.9	1.4	3.6	2
Hazardous waste	1	0.8	0.4	0.5	0.4	0.2
TOTAL OTHER WASTES	3.8			1.9		
Ash	0	0	0	0	0	0
Sewage sludge	0	0	0	0	0	0
Industrial sludge	0	0	0	0	0	0
Asbestos	0	0	0	0	0	0
Auto shredder	0	0	0	0	0	0
Auto bodies	0	0	0	0	0	0
Other special waste	0	0	0	0	0	0
TOTAL SPECIAL WASTES	0			0		
TOTAL ALL WASTES				100		

Table 2-7
Commercial Waste Sorting Field Data
Unincorporated Los Angeles County

WASTE TYPE 11 Samples	WEIGHT (lbs)			PERCENT WEIGHT		
	AVERAGE WT	WT STD DEV	WT CONFID INTERVAL	AVERAGE PERCENT WT	PERCENT WT STD DEV	PERCENT WT CONFID INTERVAL
Corrugated containers	6.6	3.6	2	4.1	2.7	1.5
Mixed paper	16.6	16.7	9.1	10	10.7	5.8
Newspaper	6.7	10	5.5	4.1	5.6	3.1
Ledger	13	10.5	5.7	7.6	5.8	3.2
Computer printouts	0	0	0	0	0	0
Other paper	30.2	17	9.3	16.7	8.6	4.7
TOTAL PAPER	73.1			42.5		
HDPE containers	2.8	2.7	1.5	1.6	1.5	0.8
PET containers	0.4	0.4	0.2	0.2	0.3	0.2
Film plastics	5.4	2.3	1.3	3.4	2.5	1.4
Other plastics	2.9	2.8	1.5	1.8	1.9	1
PVC	0	0	0	0	0	0
Polystyrene	3.4	3.3	1.8	1.9	1.9	1
TOTAL PLASTICS	14.9			8.9		
Refillable glass	0	0	0	0	0	0
CA redemption glass	1.5	1.9	1	0.9	1	0.5
Other recyclable glass	1.6	2	1.1	0.9	1.1	0.6
Other nonrecyclable glass	0.9	1.3	0.7	0.5	0.7	0.4
TOTAL GLASS	4			2.3		
Aluminum cans	0.5	0.2	0.1	0.3	0.1	0.1
Bi-metal containers	0	0	0	0	0	0
Ferrous metals	10.1	15.5	8.5	5.1	7.5	4.1
Nonferrous metals	1	1.7	0.9	0.6	1.2	0.7
White goods	0	0	0	0	0	0
Other metals	0	0	0	0	0	0
TOTAL METALS	11.6			6		
Yard waste	7.1	23.2	12.7	2.7	8.7	4.8
TOTAL YARD WASTE	7.1			2.7		
Food waste	28.4	21.5	11.7	17.2	13	7.1
Tires and rubber	4.4	7	3.8	2.5	3.9	2.1
Wood	13.1	8.3	4.5	6.9	3.9	2.1
Crop residues	0	0	0	0	0	0
Diapers	0.5	0.8	0.4	0.3	0.4	0.2
Manure	5.4	15.5	8.5	2.6	6	3.3
Textiles and leather	7.7	7.9	4.3	4.6	5.3	2.9
Misc. other organics	4.7	4.2	2.3	2.4	2.1	1.1
TOTAL OTHER ORGANICS	65.2			36.5		
Inert solids	0.5	1.1	0.6	0.3	0.5	0.3
Hazardous waste	1.7	2.6	1.4	0.9	1.4	0.8
TOTAL OTHER WASTES	2.2			1.2		
Ash	0	0	0	0	0	0
Sewage sludge	0	0	0	0	0	0
Industrial sludge	0	0	0	0	0	0
Asbestos	0	0	0	0	0	0
Auto shredder	0	0	0	0	0	0
Auto bodies	0	0	0	0	0	0
Other special waste	0	0	0	0	0	0
TOTAL SPECIAL WASTES	0			0		
TOTAL ALL WASTES				100		

Note: Total does not add to 100% due to rounding

Table 2-8

Unincorporated Los Angeles County
Industrial Waste Field Data

WASTE TYPE 13 VISUAL OBSERVATIONS	WEIGHT (lbs) AVERAGE ESTIMATED WT	WT STD DEV	WT CONFID INTERVAL	COMPOSITION (%) AVERAGE EST. PERCENT WT	PERCENT WT STD DEV	PERCENT WT CONFID INTERVAL
Corrugated containers	6.9	25	12.4	0	0.1	0
Mixed paper	0	0	0	0	0	0
Newspaper	0	0	0	0	0	0
Ledger	0	0	0	0	0	0
Computer printouts	0	0	0	0	0	0
Other paper	0	0	0	0	0	0
TOTAL PAPER	6.9			0		
HDPE containers	3.3	11.8	5.8	0	0.1	0
PET containers	0	0	0	0	0	0
Film plastics	15.1	36.8	18.2	0.3	1	0.5
Other plastics	262.3	624.7	308.8	1.1	2.8	1.4
PVC	0	0	0	0	0	0
Polystyrene	73.1	182.5	90.2	0.3	0.7	0.3
TOTAL PLASTICS	353.8			1.7		
Refillable glass	0	0	0	0	0	0
CA redemption glass	0	0	0	0	0	0
Other recyclable glass	25	90.1	44.5	0.6	2.1	1
Other nonrecyclable glass	0	0	0	0	0	0
TOTAL GLASS	25			0.6		
Aluminum cans	0	0	0	0	0	0
Bi-metal containers	0	0	0	0	0	0
Ferrous metals	3.5	12.5	6.2	0.1	0.3	0.1
Nonferrous metals	0	0	0	0	0	0
White goods	0	0	0	0	0	0
Other metals	0	0	0	0	0	0
TOTAL METALS	3.5			0.1		
Yard waste	1692.3	3386.9	1674.2	11.2	27.3	13.5
TOTAL YARD WASTE	1692.3			11.2		
Food waste	0	0	0	0	0	0
Tires and rubber	0	0	0	0	0	0
Wood	2189.7	4500.1	2224.5	18	33.5	16.6
Crop residues	0	0	0	0	0	0
Diapers	0	0	0	0	0	0
Manure	0	0	0	0	0	0
Textiles and leather	0	0	0	0	0	0
Misc. other organics	0	0	0	0	0	0
TOTAL OTHER ORGANICS	2189.7			18		
Inert solids	12811.9	12237.2	6049.1	68.4	40.7	20.1
Hazardous waste	0	0	0	0	0	0
TOTAL OTHER WASTES	12811.9			68.4		
Ash	0	0	0	0	0	0
Sewage sludge	0	0	0	0	0	0
Industrial sludge	0	0	0	0	0	0
Asbestos	0	0	0	0	0	0
Auto shredder	0	0	0	0	0	0
Auto bodies	0	0	0	0	0	0
Other special waste	0	0	0	0	0	0
TOTAL SPECIAL WASTES	0			0		
TOTAL ALL WASTES				100		

NOTE: All data based on visual observations of industrial roll-off containers

Group 5: Southeast Area Integrated Waste Management Working Group

Table 2-4

Commercial Grouping -- Percent of Businesses Listed

Group	Wholesale	Retail	Financial	Services
1	10.9%	41.7%	7.1%	39.9%
2	24.0%	30.3%	5.5%	37.5%
3	13.4%	36.3%	8.0%	42.4%

Most of the businesses were either classified as retail or service. The cities and unincorporated areas in Group 1 had slightly more retail businesses than services. Businesses classified as wholesale represented approximately 11% of all businesses in the Group 1 cities and unincorporated areas.

The Group 3 cities had slightly more service establishments than retail. Wholesale businesses represented 13.4% of all businesses.

The percent of retail and service businesses for the cities in Group 2 were both less than 40%. The percent of wholesale businesses was approximately twice as great as that for Groups 1 and 3.

The cities in each of the commercial groups is as follows:

Group 1	Group 2	Group 3
Artesia	Commerce	Cerritos
Bell	La Mirada	Whittier
Bellflower	Paramount	Downey
Bell Gardens	Pico Rivera	Norwalk
Compton		
Cudahy		
Hawaiian Gardens		
Huntington Park		
Lakewood		
Lynwood		
Maywood		
South Gate		
Unincorporated Areas		

The profiles of the two industrial groupings are shown in the table below. The businesses classified as industrial were those with SIC codes between 10 and 49.

Table 2-5

Industrial Groupings -- Percent of Businesses Listed

Group	Mining	Construction	Mfg.	Trans/Utilities
1	4.0%	43.9%	34.5%	16.6%
2	2.8%	16.1%	63.5%	17.6%

The percent of businesses classified as mining and transportation/utilities were approximately the same for the cities and unincorporated areas in both Group 1 and Group 2. However, the Group 1 cities had a more equal mix of construction and manufacturing businesses while the Group 2 cities and unincorporated areas had significantly more manufacturing than construction businesses.

The cities in each of the industrial groups are as follows:

Group 1	Group 2
Artesia	Bell
Bell Gardens	Commerce
Bellflower	Compton
Cerritos	Cudahy
Downey	La Mirada
Hawaiian Gardens	Lynwood
Huntington Park	Maywood
Lakewood	Paramount
Norwalk	Pico Rivera
Whittier	South Gate
	County Unincorporated

2.2.4 Field Sampling and Sorting

A field sampling plan was designed for the residential and commercial groups. Discussions were held with the primary waste haulers servicing the cities and

unincorporated areas to develop a rationale for the selection of loads to be sampled. At least 5 loads from each of the groups were to be sampled. In some cases, as a result of information provided by the haulers, additional loads were sorted to ensure that all portions of the residential and commercial sectors were adequately sampled.

The sorting plan and schedule is included in Appendix B-4. This plan was reviewed with the staff of the CIWMB to ensure that the verification sampling plan would be adequate.

The number of loads, the total quantity of waste sorted, and the average weight of the samples sorted appear in the following table.

Table 2-6

Waste Sorting Description by Groupings

Group	# of Loads	Total Weight (lbs)	Average Sample Weight (lbs)
Residential Group 1	7	1,878	268
Residential Group 2	5	1,580	316
Residential Group 3	8	1,930	241
Commercial Group 1	9	2,532	281
Commercial Group 2	6	1,590	265
Commercial Group 3	7	1,904	272
Total	**42**	**11,414**	**272**

All field sampling was conducted at the Paramount Resource Recycling Facility (PRRF) in the City of Paramount. Private waste haulers operating in the cities

and unincorporated areas in each group were contacted and requested to divert specified loads of waste to the PRRF for sorting.

The haulers that participated in the sampling plan were:

Metropolitan Waste Disposal
Consolidated Waste Disposal
Cal San Disposal
Western Waste Industries
B.Z. Disposal
Klistoff & Sons Disposal

The sampling procedure was as follows:

When a truck designated for sampling entered the PRRF yard, the truck was weighed and then directed to the tipping area of the facility. The truck was unloaded in the tipping area and then re-routed to the scale before exiting the facility so that the net weight of the load could be determined.

After each load was deposited on the tipping floor, a front loader was used to mix the contents of the load. Next, a random sample of approximately 300 to 400 pounds of material from each load was moved to the sorting area. Two 3-person sorting crews were utilized to sort the loads. The sorting supervisor was responsible for randomly selecting at least 200 pounds of material from each pile to be sorted and for instructing the sorters on the proper segregation of the material. Separate containers were utilized to sort the sampled material into 41 different waste types. Additional waste types sorted included rigid plastic containers, polystyrene, diapers, fines, yard prunings, and miscellaneous other wastes. Agricultural crop residues were sorted into other organics. As none of the cities are adjacent to any bodies of water, no marine wastes were discovered.

When at least 200 pounds of material from each pile had been sorted, each container was weighed and the net weight recorded.

The sorting took place between February 8 and 19, 1991. The weather during this period was clear and dry.

2.2.5 Data Analysis

All field data was compiled and analyzed to calculate the total sample weight, the total amount of material of each type that was sorted, and the percent of the total material sorted represented by each type. The composition data resulting from the field sampling for the working group is summarized in Table 2-7 and Table 2-8 on the following pages. More detailed data sheets from the field sampling are included in Appendix B-5.

TABLE 2-7

RESIDENTIAL WASTE SORTING FIELD DATA

WASTE TYPE	AVERAGE % WEIGHT		
	Group 1	Group 2	Group 3
Corrugated Containers	4.00%	4.80%	5.80%
Mixed Paper	8.10%	11.40%	11.50%
Newspaper	6.20%	7.10%	9.90%
Ledger	0.30%	0.70%	0.40%
Other Paper	4.40%	3.30%	2.60%
TOTAL PAPER	**23.00%**	**27.30%**	**30.20%**
Containers	0.20%	0.20%	0.30%
PET containers	0.10%	0.30%	0.10%
HDPE containers	1.20%	0.60%	0.70%
Film plastics	2.80%	2.60%	2.70%
Polystyrene	0.80%	0.50%	0.70%
Other plastics	2.70%	2.00%	2.20%
TOTAL PLASTICS	**7.80%**	**6.20%**	**6.70%**
Refillable glass	0.00%	0.00%	0.00%
CA redemption glass	1.50%	2.20%	1.20%
Other recyclable glass	3.40%	3.90%	3.00%
Other non-recyclable glass	0.40%	0.30%	0.10%
TOTAL GLASS	**5.30%**	**6.40%**	**4.30%**
Aluminum cans	0.10%	0.10%	0.30%
Tin cans	2.10%	1.60%	2.20%
Ferrous metals	1.20%	0.30%	0.40%
Non-ferrous metals	0.30%	0.40%	0.20%
White goods	0.00%	0.00%	0.30%
Other metals	1.70%	0.80%	1.40%
TOTAL METALS	**5.40%**	**3.20%**	**4.80%**
Grass / leaves	6.90%	13.30%	13.70%
Prunings	9.80%	9.00%	7.40%
TOTAL YARD WASTE	**16.70%**	**22.30%**	**21.10%**
Food waste	16.50%	15.70%	16.50%
Wood waste	4.80%	2.00%	2.50%
Tires and rubber	1.50%	0.30%	2.00%
Manure	0.00%	0.00%	0.30%
Diapers	5.90%	4.10%	4.40%
Textiles and leather	5.60%	4.20%	3.00%
Other organics	1.10%	0.60%	2.10%
TOTAL OTHER ORGANICS	**35.40%**	**26.90%**	**30.80%**
Inert solids	4.40%	7.70%	1.90%
Hazardous waste	0.50%	0.10%	0.20%
Fines	1.40%	0.10%	0.00%
Miscellaneous	0.00%	0.00%	0.00%
TOTAL OTHER WASTES	**6.30%**	**7.90%**	**2.10%**
Ash	0.00%	0.00%	0.00%
Industrial sludge	0.00%	0.00%	0.00%
Sewage sludge	0.00%	0.00%	0.00%
Asbestos	0.00%	0.00%	0.00%
Auto shredder	0.00%	0.00%	0.00%
Auto bodies	0.00%	0.00%	0.00%
Other special waste	0.00%	0.00%	0.00%
TOTAL SPECIAL WASTE	**0.00%**	**0.00%**	**0.00%**

TABLE 2-8

COMMERCIAL WASTE SORTING FIELD DATA

WASTE TYPE	AVERAGE % WEIGHT		
	Group 1	Group 2	Group 3
Corrugated Containers	16.10%	20.50%	13.30%
Mixed Paper	7.30%	6.70%	6.70%
Newspaper	1.90%	3.90%	5.90%
Ledger	3.10%	2.00%	2.80%
Other Paper	2.30%	6.10%	1.90%
TOTAL PAPER	**30.70%**	**39.20%**	**30.60%**
Containers	0.00%	0.70%	0.20%
PET containers	0.00%	0.00%	0.10%
HDPE containers	0.50%	1.30%	0.30%
Film plastics	6.40%	3.50%	2.40%
Polystyrene	0.90%	1.60%	1.10%
Other plastics	3.30%	0.90%	3.30%
TOTAL PLASTICS	**11.10%**	**8.00%**	**7.40%**
Refillable glass	0.00%	0.00%	0.00%
CA redemption glass	0.40%	2.20%	0.50%
Other recyclable glass	0.40%	0.90%	0.50%
Other non-recyclable glass	1.80%	0.00%	0.10%
TOTAL GLASS	**2.60%**	**3.10%**	**1.10%**
Aluminum cans	0.10%	0.10%	0.20%
Tin cans	2.00%	1.00%	0.60%
Ferrous metals	2.80%	2.20%	1.40%
Non-ferrous metals	0.10%	0.20%	0.50%
White goods	0.00%	1.50%	0.00%
Other metals	2.30%	0.80%	6.00%
TOTAL METALS	**7.30%**	**5.80%**	**8.70%**
Grass / leaves	1.90%	2.70%	1.90%
Prunings	3.10%	2.40%	5.60%
TOTAL YARD WASTE	**5.00%**	**5.10%**	**7.50%**
Food waste	13.50%	22.40%	18.70%
Wood waste	12.30%	11.00%	7.10%
Tires and rubber	0.90%	0.00%	3.70%
Manure	0.00%	0.00%	0.20%
Diapers	0.80%	0.60%	0.80%
Textiles and leather	10.20%	1.00%	5.50%
Other organics	1.30%	2.10%	1.10%
TOTAL OTHER ORGANICS	**39.00%**	**37.10%**	**37.10%**
Inert solids	3.40%	1.70%	7.60%
Hazardous waste	0.20%	0.00%	0.00%
Fines	0.70%	0.00%	0.00%
Miscellaneous	0.00%	0.00%	0.00%
TOTAL OTHER WASTES	**4.30%**	**1.70%**	**7.60%**
Ash	0.00%	0.00%	0.00%
Industrial sludge	0.00%	0.00%	0.00%
Sewage sludge	0.00%	0.00%	0.00%
Asbestos	0.00%	0.00%	0.00%
Auto shredder	0.00%	0.00%	0.00%
Auto bodies	0.00%	0.00%	0.00%
Other special waste	0.00%	0.00%	0.00%
TOTAL SPECIAL WASTE	**0.00%**	**0.00%**	**0.00%**

Analysis of Variance. The analysis of variance (ANOVA) procedure is a two part statistical technique designed to test the assumption that the means of two or more populations are the same. For this waste composition study, the ANOVA procedure was used to test if the mean percent by weight of a particular type of waste (paper, plastic, etc.) in the County Unincorporated Areas's waste stream was equal to that of another city. The data from the field sampling was compared to statistically representative sampling data from a city with similar characteristics.

Part 1 of the procedure is based on the assumption that the mean percent of a type of waste is the same for both the County Unincorporated Areas and the comparable city (i.e. % of paper in Working Group City A's waste stream is equal to the % paper in Comparable City X's waste stream). If this assumption is true, both samples can be said to be taken from the same normally distributed population. To complete this part of the procedure, the common population mean was calculated and the variance of each sample mean from the working group city and the comparable city data about this mean were calculated. This between-group variability was used as an estimate of the common population variance.

The second part of the ANOVA procedure involved an estimate of the common population variance based on the variation of the sample means within the Working Group City data and within the comparable city data. Because of the difference in sample sizes a weighted average was used to determine this estimate.

The distribution of the estimates of a population variance follow an F probability distribution. The sampling distribution of the ratio of the between-means estimate and the within-means estimate of the population variance also follows an F distribution. This ratio was compared to a critical value taken from an F distribution table with a level of significance of .01 and specific degrees of freedom based on the number of samples taken for the working group city and the comparable city. If the ratio of the two estimates of the common population variance was less than the critical value, then the hypothesis that the two means are equal could be said to be true.

The formulas used to calculate the between-means and within-means estimates of the population variance are shown in Appendix B-7.

Residential Data Analysis. Residential sampling data from the City of Santa Fe Springs was used to test the validity of the residential sampling data for Residential Group 1. This data is shown in Appendix B-6. Santa Fe Springs was chosen because of the similarity of its residential profile to that of Residential Group 1. A comparison of these profiles is as follows:

Factor	Santa Fe Springs	Group 1
Average Per Capita Income	$8,853	$6,599
Single Family Units	69.0%	57.7%
Multi-family units	29.0%	39.9%
Housing Density		
Units/Acre	9.30	12.60
Persons/Acre	31.70	44.90
Persons/Household	3.46	3.73

An ANOVA procedure was performed on the sample data for Residential Group 1 and the City of Santa Fe Springs. The ratio of the two estimates of the common population variance and the critical value from the F distribution table that resulted from this comparison are as follows:

	Variance Ratio	Critical Value
Paper	5.003	8.86
Plastic	1.101	8.86
Glass	0.057	8.86
Metals	0.433	8.86
Yard Waste	0.795	8.86
Organics	8.144	8.86
Other Waste	0.326	8.86

The critical value was based on a numerator degrees of freedom of 1 and a denominator degrees of freedom of 14. Given that the variance ratios for each category of material are less than the critical values it can be concluded that the sample means are equal and are from a common population. As a result, the field sampling data for Residential Group 1 was used to represent the composition of the waste disposed by the Group 1 cities and unincorporated areas.

Commercial Data Analysis. The sampling results for Commercial Group 1 were compared to commercial sampling results for the Santa Fe Springs. This city was chosen because of the similarity of the profile of its commercial community to that of the cities in Commercial Group 1. A comparison of the commercial profiles is as follows:

	Wholesale	Retail	Financial	Services
Commercial Group 1	10.9%	41.7%	7.1%	39.8%
Santa Fe Springs	25.2%	36.4%	5.5%	32.8%

The commercial profile of Santa Fe Springs met the general criteria for the inclusion of a city in Commercial Group 1.

An ANOVA procedure was performed on the sample data for Commercial Group 1 and the City of Santa Fe Springs. The ratio of the two estimates of the common population variance and the critical value from the F distribution table that resulted from this comparison are as follows:

Category	Variance Ratio	Critical Value
Paper	1.026	7.40
Plastic	1.245	7.40
Glass	0.125	7.40
Metals	0.490	7.40
Yard Waste	0.167	7.40
Organics	2.880	7.40
Other Wastes	0.100	7.40

The critical value was selected based on a numerator degrees of freedom of 1 and a denominator degrees of freedom of 35.

Since the ratio of the variances are less than the critical values, it can be concluded that the means are equal and are from a common population. Thus, the field sampling results for Commercial Group 1 were used to represent the composition of the commercial waste generated by the cities and unincorporated areas in Commercial Group 1.

Industrial Composition Data. Industrial waste composition data from the City of Santa Fe Springs was used to estimate the composition of the industrial waste stream of the cities and unincorporated areas in Industrial Group 2. The profile of Industrial Group 2 and the Santa Fe Springs indicated that each was predominately manufacturing (63 - 71%) with between 15 and 20% of the businesses classified as contstruction-related. A comparison of the profiles is as follows:

	Mining	Const.	Mfg.	Trans.
Group 2	2.8%	16.1%	63.5%	17.6%
Santa Fe Springs	1.2%	20.8%	70.9%	7.1%

2.2.6 Summary of Results

The waste composition data was combined with the data obtained from the waste haulers to obtain an overall waste disposal composition profile for the residential, commercial, and industrial generators in the County Unincorporated Areas. The results are presented in Tables 2-9, 2-10, and 2-11.

TABLE 2-9

RESIDENTIAL WASTE COMPOSITION - COUNTY OF L.A.

WASTE TYPE	RESIDENTIAL WASTE AVERAGE ANNUAL TONS		AVERAGE % WT
Corrugated Containers		5,634.08	4.00%
Mixed Paper		11,409.01	8.10%
Newspaper		8,732.82	6.20%
Ledger		422.56	0.30%
Other Paper		6,197.49	4.40%
TOTAL PAPER	32,395.96		23%
Containers		281.70	0.20%
PET containers		140.85	0.10%
HDPE containers		1,690.22	1.20%
Film plastics		3,943.86	2.80%
Polystyrene		1,126.82	0.80%
Other plastics		3,803.00	2.70%
TOTAL PLASTICS	10,986.46		8%
Refillable glass		0.00	0.00%
CA redemption glass		2,112.78	1.50%
Other recyclable glass		4,788.97	3.40%
Other non-recyclable glass		563.41	0.40%
TOTAL GLASS	7,465.16		5%
Aluminum cans		140.85	0.10%
Tin cans		2,957.89	2.10%
Ferrous metals		1,690.22	1.20%
Non-ferrous metals		422.56	0.30%
White goods		0.00	0.00%
Other metals		2,394.48	1.70%
TOTAL METALS	7,606.01		5%
Grass / leaves		9,718.79	6.90%
Prunings		13,803.50	9.80%
TOTAL YARD WASTE	23,522.28		17%
Food waste		23,240.58	16.50%
Wood waste		6,760.90	4.80%
Tires and rubber		2,112.78	1.50%
Manure		0.00	0.00%
Diapers		8,310.27	5.90%
Textiles and leather		7,887.71	5.60%
Other organics		1,549.37	1.10%
TOTAL OTHER ORGANICS	49,861.61		35%
Inert solids		6,197.49	4.40%
Hazardous waste		704.26	0.50%
Fines		1,971.93	1.40%
Miscellaneous		0.00	0.00%
TOTAL OTHER WASTES	8,873.68		6%
Ash		0.00	0.00%
Industrial sludge		0.00	0.00%
Sewage sludge		0.00	0.00%
Asbestos		0.00	0.00%
Auto shredder		0.00	0.00%
Auto bodies		0.00	0.00%
Other special waste		0.00	0.00%
TOTAL SPECIAL WASTE	0.00		0%
TOTAL ALL WASTE	140,711.15		100%

TABLE 2-10

COMMERCIAL WASTE COMPOSITION - COUNTY OF L.A.

WASTE TYPE	COMMERCIAL WASTE AVERAGE ANNUAL TONS	AVERAGE % WT
Corrugated Containers	12,863.90	16.10%
Mixed Paper	5,832.70	7.30%
Newspaper	1,518.10	1.90%
Ledger	2,476.90	3.10%
Other Paper	1,837.70	2.30%
TOTAL PAPER	**24,529.30**	**31%**
Containers	0.00	0.00%
PET containers	0.00	0.00%
HDPE containers	399.50	0.50%
Film plastics	5,113.60	6.40%
Polystyrene	719.10	0.90%
Other plastics	2,636.70	3.30%
TOTAL PLASTICS	**8,868.90**	**11%**
Refillable glass	0.00	0.00%
CA redemption glass	319.60	0.40%
Other recyclable glass	319.60	0.40%
Other non-recyclable glass	1,438.20	1.80%
TOTAL GLASS	**2,077.40**	**3%**
Aluminum cans	79.90	0.10%
Tin cans	1,598.00	2.00%
Ferrous metals	2,237.20	2.80%
Non-ferrous metals	79.90	0.10%
White goods	0.00	0.00%
Other metals	1,837.70	2.30%
TOTAL METALS	**5,832.70**	**7%**
Grass / leaves	1,518.10	1.90%
Prunings	2,476.90	3.10%
TOTAL YARD WASTE	**3,995.00**	**5%**
Food waste	10,786.50	13.50%
Wood waste	9,827.70	12.30%
Tires and rubber	719.10	0.90%
Manure	0.00	0.00%
Diapers	639.20	0.80%
Textiles and leather	8,149.80	10.20%
Other organics	1,038.70	1.30%
TOTAL OTHER ORGANICS	**31,161.00**	**39%**
Inert solids	2,716.60	3.40%
Hazardous waste	159.80	0.20%
Fines	559.30	0.70%
Miscellaneous	0.00	0.00%
TOTAL OTHER WASTES	**3,435.70**	**4%**
Ash	0.00	0.00%
Industrial sludge	0.00	0.00%
Sewage sludge	0.00	0.00%
Asbestos	0.00	0.00%
Auto shredder	0.00	0.00%
Auto bodies	0.00	0.00%
Other special waste	0.00	0.00%
TOTAL SPECIAL WASTE	**0.00**	**0%**
TOTAL ALL WASTE	**79,900.00**	**100%**

TABLE 2-11

INDUSTRIAL WASTE COMPOSITION - COUNTY OF L.A.

WASTE TYPE	INDUSTRIAL WASTE AVERAGE ANNUAL TONS		AVERAGE % WT
Corrugated Containers		9,768.41	13.10%
Mixed Paper		7,978.78	10.70%
Newspaper		820.25	1.10%
Ledger		820.25	1.10%
Other Paper		2,759.02	3.70%
TOTAL PAPER	22,146.70		30%
Containers		820.25	1.10%
PET containers		149.14	0.20%
HDPE containers		223.70	0.30%
Film plastics		3,430.13	4.60%
Polystyrene		447.41	0.60%
Other plastics		5,741.74	7.70%
TOTAL PLASTICS	10,812.36		15%
Refillable glass		0.00	0.00%
CA redemption glass		372.84	0.50%
Other recyclable glass		298.27	0.40%
Other non-recyclable glass		1,416.79	1.90%
TOTAL GLASS	2,087.90		3%
Aluminum cans		0.00	0.00%
Tin cans		149.14	0.20%
Ferrous metals		3,430.13	4.60%
Non-ferrous metals		1,043.95	1.40%
White goods		1,715.06	2.30%
Other metals		149.14	0.20%
TOTAL METALS	6,487.42		9%
Grass / leaves		2,087.90	2.80%
Prunings		969.38	1.30%
TOTAL YARD WASTE	3,057.29		4%
Food waste		2,460.74	3.30%
Wood waste		12,154.58	16.30%
Tires and rubber		5,592.60	7.50%
Manure		0.00	0.00%
Diapers		0.00	0.00%
Textiles and leather		4,548.65	6.10%
Other organics		820.25	1.10%
TOTAL OTHER ORGANICS	25,576.82		34%
Inert solids		2,982.72	4.00%
Hazardous waste		74.57	0.10%
Fines		223.70	0.30%
Miscellaneous		1,118.52	1.50%
TOTAL OTHER WASTES	4,399.51		6%
Ash		0.00	0.00%
Industrial sludge		0.00	0.00%
Sewage sludge		0.00	0.00%
Asbestos		0.00	0.00%
Auto shredder		0.00	0.00%
Auto bodies		0.00	0.00%
Other special waste		0.00	0.00%
TOTAL SPECIAL WASTE	0.00		0%
TOTAL ALL WASTE	74,568.00		100%

APPENDIX D

EVALUATION METHODOLOGY FOR ALTERNATIVE DIVERSION PROGRAMS

APPENDIX D
EVALUATION METHODOLOGY FOR ALTERNATIVE DIVERSION PROGRAMS

The AB 939 regulations require a comprehensive and workable set of evaluation criteria to use in the selection of viable alternatives for the Source Reduction and Recycling (SRR) element. These include 10 criteria stated in the California Integrated Waste Management Board's (CIWMB) Planning Guidelines that must be used in evaluation. It is noted that several additional criteria are used in evaluating alternatives to provide a comprehensive analysis.

While the regulations do not specifically require a numerical scoring system, there is a need to provide quantitative measures by which the County can provide SRR elements to the CIWMB, with logical, defensible program selections. Numerical systems, however, can over-simplify an evaluation process, and, in fact, create situations where highly ranked options based on numerical scores may not be suitable or practicable. Consequently, our evaluative system does not rely solely on quantitative analysis, but rather incorporates qualitative procedure to address potential fatal flaws amid political and local demographic circumstances.

To that end, local conditions were assembled on the County that included: 1) goals and objectives, 2) local demographics, and 3) a local conditions survey. These are covered under a different appendix. By combining the quantitative and qualitative aspects, the final selected program will ultimately reflect the local conditions and input from local decision makers, while providing some mechanism for orderly selection.

The criteria for evaluation are presented below. They are grouped into three categories: cost effectiveness, technical effectiveness, and institutional risks and impacts.

COST EFFECTIVENESS

Effectiveness in Reducing Waste Quantity [18733.3(a)(1)]

This criteria considers the effectiveness of an alternative in reducing the amount of the targeted solid waste. It is measured by the existing amount of waste targeted for diversion, the anticipated range of participation, the anticipated material recovery rates, and the anticipated materials contamination or rejection levels. Based on these factors, the criterion evaluates the estimated percentage of solid waste reduced or diverted by the alternative. For the purpose of this plan, the following ratings are used:

Low: Very little diversion is expected.

Medium: A moderate amount of diversion is expected.

High: A significant amount of diversion is expected.

Estimated Cost Rating: Short-Term [18733.3(b)(3)]

Short-term is the estimated cost related to the alternative, including capital costs and operating costs, over the short-term planning period.

Low: The cost to implement the alternative is high compared to other alternatives being considered.

Medium: The cost to implement the alternative is considered mid-range compared to other alternatives being considered.

High: The cost to implement the alternative is low compared to other alternatives being considered.

Estimated Cost Rating: Medium-Term [18733.3(b)(3)]

Medium-term cost is the estimated cost related to the alternative, including capital costs and operating costs, over the lifecycle of the alternative.

Low: The cost to implement the alternative is high compared to other alternatives being considered.

Medium: The cost to implement the alternative is considered mid-range compared to other alternatives being considered.

High: The cost to implement the alternative is low compared to other alternatives being considered.

Ease of Financing [no regulation]

Depending on the cost, potential for revenue production, and other factors, an alternative can be evaluated in terms of how easy it is to obtain financing for its implementation.

Low: Difficult to finance for reasons of risk of venture, no revenue production, high capital expense, and lack of prior financing experience.

Medium: Requires some equity or other performance bonding to obtain financing.

High: No difficulty to obtain financing.

TECHNICAL CONSIDERATIONS

Absence of Hazards [18733.3(a)(2)]

Absence of hazards refers to the degree of hazard that could result from implementing the alternative. Hazards could include health risks, injury, fire, or public nuisances.

Low: Potential hazards not understood or the alternative increases the potential hazards.

Medium: Potential hazards are known and controllable. Some impacts remain.

High: There are few or no potential hazards or unmitigated impacts.

Flexibility [18733.3(a)(3)]

Flexibility considers the alternative's ability to accommodate changing economic, technological, and soil conditions.

Low: The alternative has a limited ability to respond to changing conditions.

Medium: The alternative is anticipated to demonstrate a moderate ability to respond to changing conditions. Significant changes in the program may be required.

High: The alternative is anticipated to be readily adaptable in meeting changing conditions. No significant changes in the program are necessary.

Limited Shift in Waste Type Generation [18733.3(a)(4)]

This criterion evaluates the consequences of implementing the alternative such as causing shifts in solid waste generation from one type to another.

Low: The alternative would significantly shift solid waste production to the generation of nonrecyclable, unmarketable, or uncountable materials (under the current regulations).

Medium: The alternative would result in the creation of little nonrecyclable, unmarketable, or uncountable wastes.

High: The alternative would not result in the creation of nonrecyclable, unmarketable, or uncountable wastes, or may shift waste generation to more readily recyclable wastes or new markets, or compostable materials.

Technical Reliability [no regulation]

Alternatives that demonstrate continued operation or service, i.e., reliability, under any and all circumstances are favorable. This evaluation considers reliability based on a number of factors, including lifecycle, maintenance, and complexity.

Low: A lack of reliability demonstrated.

Medium: No demonstrated reliability.

High: Demonstrated reliability.

Equipment and Personnel Availability [no regulation]

Alternatives reflect equipment and personnel requirements that range from low technology and existing, to high technology requiring advanced training and skills not readily found in a jurisdiction. This evaluation considers such factors.

Low: Alternative requires specialized personnel and equipment.

Medium: Alternative may require either specialized personnel or equipment.

High: Alternative can be implemented with existing personnel and equipment.

System Compatibility [no regulation]

One facet of implementation is the compatibility of an alternative with the existing system, including its laws and technologies. This evaluation considers the degree of compatibility of an alternative with other solid waste management systems, economic structures, and planning and engineering aspects of the City.

Low: Not compatible with the existing systems.

Medium: Exhibits equal numbers of compatible and incompatible aspects.

High: Generally compatible with the existing system.

INSTITUTIONAL CONSIDERATIONS AND RISKS

Implementability [18733.3(a)(5)]

Refers to the extent to which an alternative can be implemented in the short or medium term given local conditions and constraints.

Low: Local conditions preclude implementation until 2000.

Medium: Local conditions preclude implementation until 1995.

High: Local conditions do not preclude implementation at any time.

Facility Need [18733.3(a)(6)]

Facility requirements considers the need for expanding existing facilities or constructing new facilities or infrastructure to support implementation of the alternative.

Low: New facilities and infrastructure must be developed.

Medium: Existing facility and infrastructure must be expanded or altered.

High: No need or expanded facilities or infrastructure.

Consistency with Local Policies [18733.3(b)(1)]

Consistency with local policies evaluates the alternative's compatibility with existing local plans, policies, ordinances, and other institutions, based on local conditions.

Low: The alternative would require major local changes.

Medium: The alternative would require minor changes.

High: The alternative would not require any changes.

Absence of Institutional Barriers [18733.3(b)(2)]

This evaluates the extent barriers such as long-term franchise agreements, contracts, permit requirements, or other factors may impact implementation of the alternative.

Low: The alternative is affected by existing barriers that are not under the control of the County.

Medium: The alternative is affected by existing barriers which the County has some control.

High: There are no known existing barriers to the implementation of the alternative.

End Uses [18733.3(b)(4)]

End uses account for the marketing of the materials in question.

Low: End uses are currently nonexistent or unreliable.

Medium: End uses exist but are subject to fluctuations.

High: End uses exist now and are stable.

Public Acceptability [no regulation]

An alternative may be more acceptable to the general public because the alternative is consistent with environmental wishes, is cost effective, or improves the standard of living in a real or perceived way. This evaluation considers such factors in determining the acceptability of an alternative at implementation and over its lifecycle.

Low: Unacceptable to the public under any circumstance.

Medium: Acceptable only under certain circumstances.

High: Acceptable under most circumstances.

Private Acceptability [no regulation]

An alternative may be more acceptable to the private sector because the alternative aligns with sector's environmental wishes, is cost effective, or improves the business climate and profitability in a real or conceptual way. This evaluation considered such factors in determining the acceptability of an alternative at implementation and over its lifecycle.

Low: Unacceptable under any circumstances.

Medium: Acceptable only under certain circumstances.

High: Acceptable under most circumstances.

Private Sector Participation Potential [no regulation]

The intent of AB 939 is clearly defined within the regulations as something that should be encouraged and actively solicited; private sector participation could be a "litmus test" for the practicability of a program. This evaluation considers whether an alternative provides for adequate private sector participation.

Low: No opportunity for participation.

Medium: Some opportunity for participation.

High: Private sector program or good opportunity for participation.

To develop the SRR element, the County undertook a series of planning steps that identified potential and actual alternatives to reduce, recycle, and compost solid waste disposed in the jurisdiction. The seven steps were:

° Establish goals and objectives of the County

° Review existing conditions

° Describe alternatives for a potential program

° Evaluate alternatives

° Configure alternatives into diversion systems and make recommendations

° Portray implementation timeline, task requirements, and costs

° Develop a monitoring and evaluation strategy

To establish the goals and objectives of the County, meetings were held with key County decision makers to solicit input on public awareness and concerns. Examples of potential goals and objectives were provided, to be used by the County in formulating its own goals and objectives. These were received by the County's consultants and used to develop the initial draft of the statement of goals and objectives for each component.

The County also assembled key documents and solicited information about private and public sector characteristics and activities in the County concerning solid waste diversion and management. This local survey information was relied upon to identify local conditions that were instrumental in actual evaluation.

Using local conditions and the goals and objectives, the County evaluated several potential alternatives that could be configured to form a program. Initially, all alternatives were screened in a preliminary manner to eliminate those alternatives that would prove untenable for the County for economic, environmental, institutional, technical, or marketing reasons.

The remaining alternatives were fully evaluated against ten basic criteria required by the CIWMD and several additional criteria. These criteria are grouped into cost, technical, and institutional areas. Each was applied to the alternatives, yielding high (H), medium (M), or low (L) result. High ratings were positive for alternatives and implied greater success in implementation, while low ratings were negative and implied greater difficulty in implementation. After integrating the results of this analysis with local conditions, goals and objectives, existing diversion rates, and other relevant considerations, alternatives were selected and configured into a system for diversion in each of the four components--recycling, source reduction, composting, and special wastes.

APPENDIX E

BVA Materials Recovery Facility
General Estimates For Project Planning

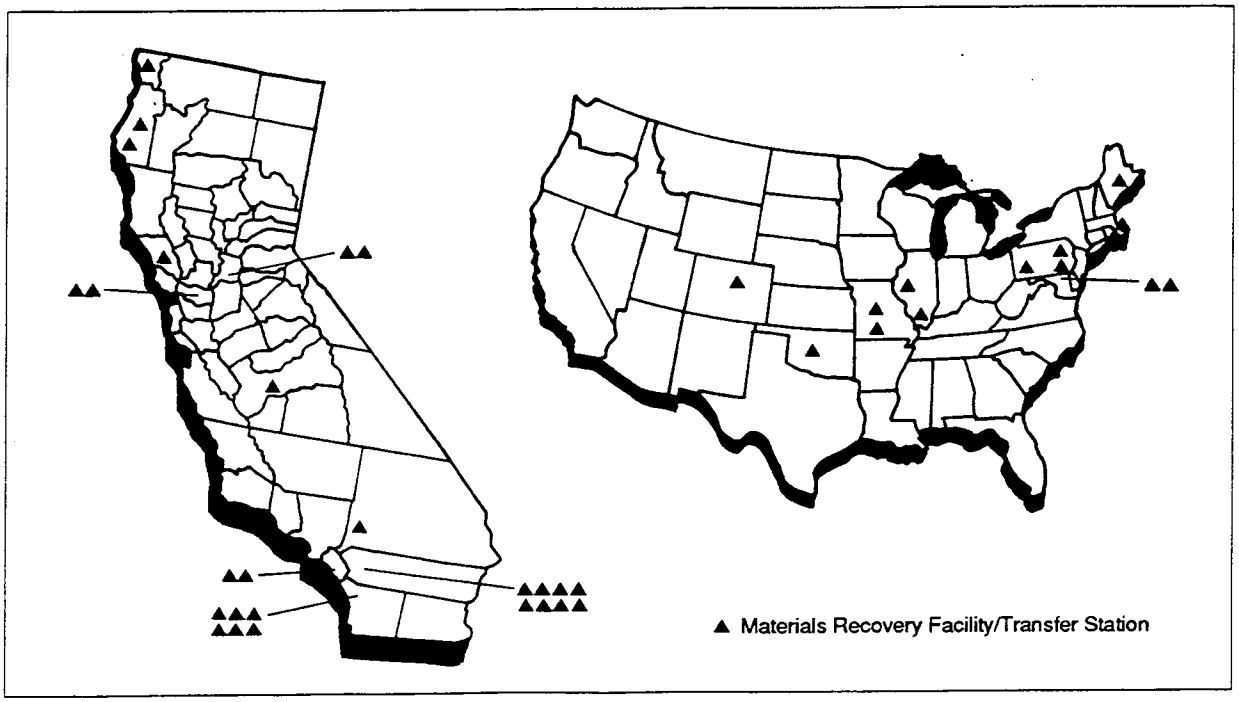
Materials Recovery Facility and Transfer Station Experience

About the Firm

BROWN, Vence & Associates (BVA) is a multidisciplinary waste management and energy consulting firm. We have more than 13 years of experience in planning and implementing integrated waste management and energy conservation programs for state and local governments and private companies. Headquartered in San Francisco with a branch office in Sacramento, we provide solid, hazardous, and medical waste management; energy conservation; and public education services for clients across the nation and in other countries. Our staff of more than 50 professionals includes licensed engineers, economists, and environmental planners with hands-on experience in designing and operating programs and facilities.

Our clientele is varied. In the public sector, we have worked with city, county, state, and federal governments, as well as regulatory agencies and multijurisdictional entities. We

BVA has helped communities in more than 20 states to plan and implement integrated waste management programs and has provided planning and engineering assistance on more than 40 materials recovery facilities and transfer stations nationwide.



have assisted a wide range of communities from rural agricultural towns to large metropolitan centers. Our private industry clients include organizations in the fields of waste management, engineering and construction, project development, utilities, health care, and general business. In finance, we serve the nation's most respected banking, underwriting, and accounting firms.

BVA offers a comprehensive array of project development services including:

- Planning studies
- Feasibility studies
- Economic analyses/rate studies
- System selection and design
- Permitting
- Privatization procurement
- Independent technical reviews
- Design and construction monitoring
- Operational troubleshooting

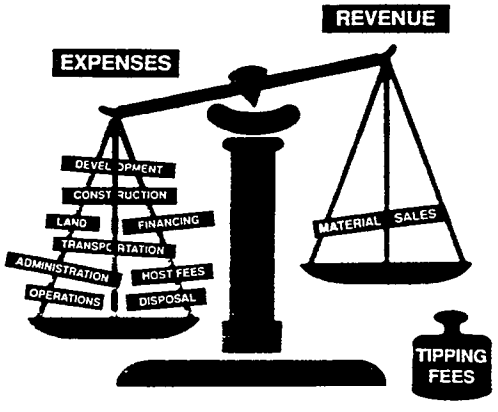
Once projects are underway, we provide ongoing evaluation and program management services.

Waste Management Options

BVA has helped communities and businesses in more than 20 states to plan and implement waste management programs and facilities. We are designing comprehensive waste management plans for more than 50 local governments to help them meet local and state-mandated waste reduction goals. We are working closely with elected officials and solid waste program staff in these communities to establish feasible, long-term waste management programs. Many of our clients have made significant progress toward diverting waste from their landfills.

We tailor our services to meet the specific needs of each client. In general our work has included:

- Identifying sources, types, and quantities of generated wastes
- Designing plans that reduce reliance on landfills by promoting source reduction, recycling, and composting
- Developing long-term strategies for ensuring that recovered materials are returned to commerce
- Assessing the need for materials recovery facilities and analyzing the institutional constraints and economic opportunities of building new facilities
- Assisting in the procurement of services from private developers and operators to build new facilities. Based on the information gathered in these studies, we have helped several of our clients site, design, finance, and construct materials recovery facilities and transfer stations.



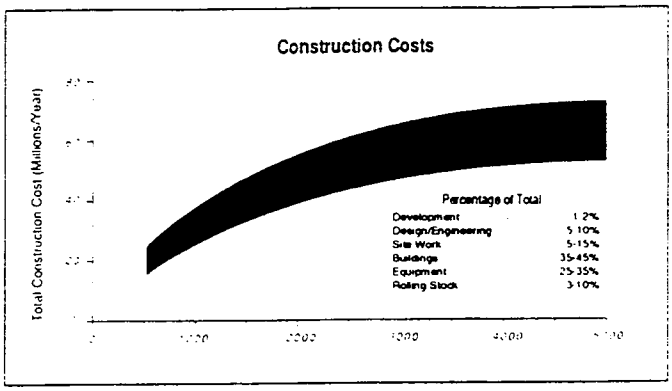
The expense of developing a MRF outweighs the revenue it will generate. The tipping fee balances the equation.

Materials Recovery Facility Implementation Services

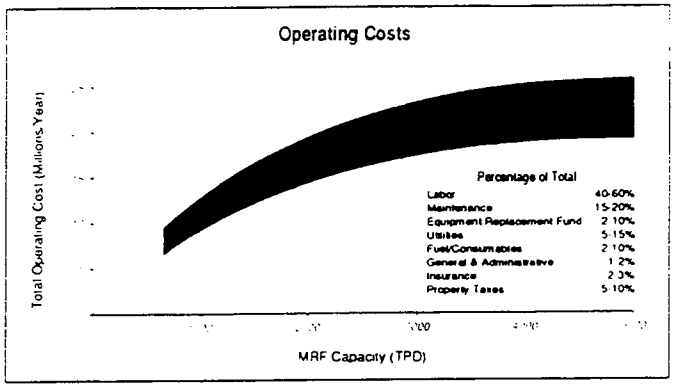
BVA has provided planning and engineering services for more than 40 materials recovery facilities and transfer stations nationwide. More than 7 are now in full operation. We have guided many of our municipal and private clients through the complex process of procuring a materials recovery facility—from the decision to establish a facility through siting, design, construction, and initial operation. We help determine the best institutional arrangements for facility development and operation; the possibilities range from implementation by an individual jurisdiction to various regional approaches. We also are experienced at assessing the optimal mix of public and private sector involvement in the development, financing, construction, and operation of facilities.

The goal of materials recovery facility development is to increase materials recovery while controlling expenses. A materials recovery facility can reduce the costs of waste management options by providing a single location for recycling and capturing economies of scale. BVA uses a comprehensive cost estimation program to assess the costs and revenues associated with various waste processing facilities.

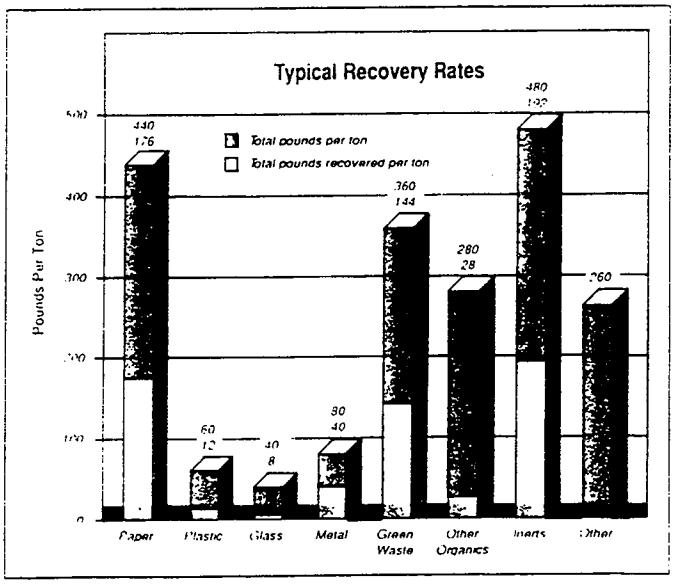
The total construction costs of a facility must take into account the expense of



With an economy of scale, it is generally more cost-effective to build a larger MRF.



It is less expensive on a per-ton basis to operate a larger facility, but these savings can be offset by transportation costs



This chart shows the breakdown of a typical ton of municipal solid waste and indicates the amount of material that can reasonably be recovered.

acquiring a site; obtaining all permits; constructing all individual buildings such as scale houses and administration buildings; and installing equipment.

Our cost estimation program allows staff to use site-specific data such as the costs of labor and management; equipment maintenance and replacement; supplies; financing review, debt service, insurance, and taxes; marketing of recovered materials; and transport and disposal of residual wastes to project annual operations information. This includes:

- Materials recovery/recycling rates
- Anticipated revenue from materials recovery operations
- Debt service coverage and return on investment
- Annual and cost-per-ton charges

We use an in-house CAD system to prepare design drawings and graphic representations of planned projects. Our CAD program allows us to create and modify three-dimensional models of the proposed structure, giving clients an accurate idea of what the final facility will look like.

Project Experience

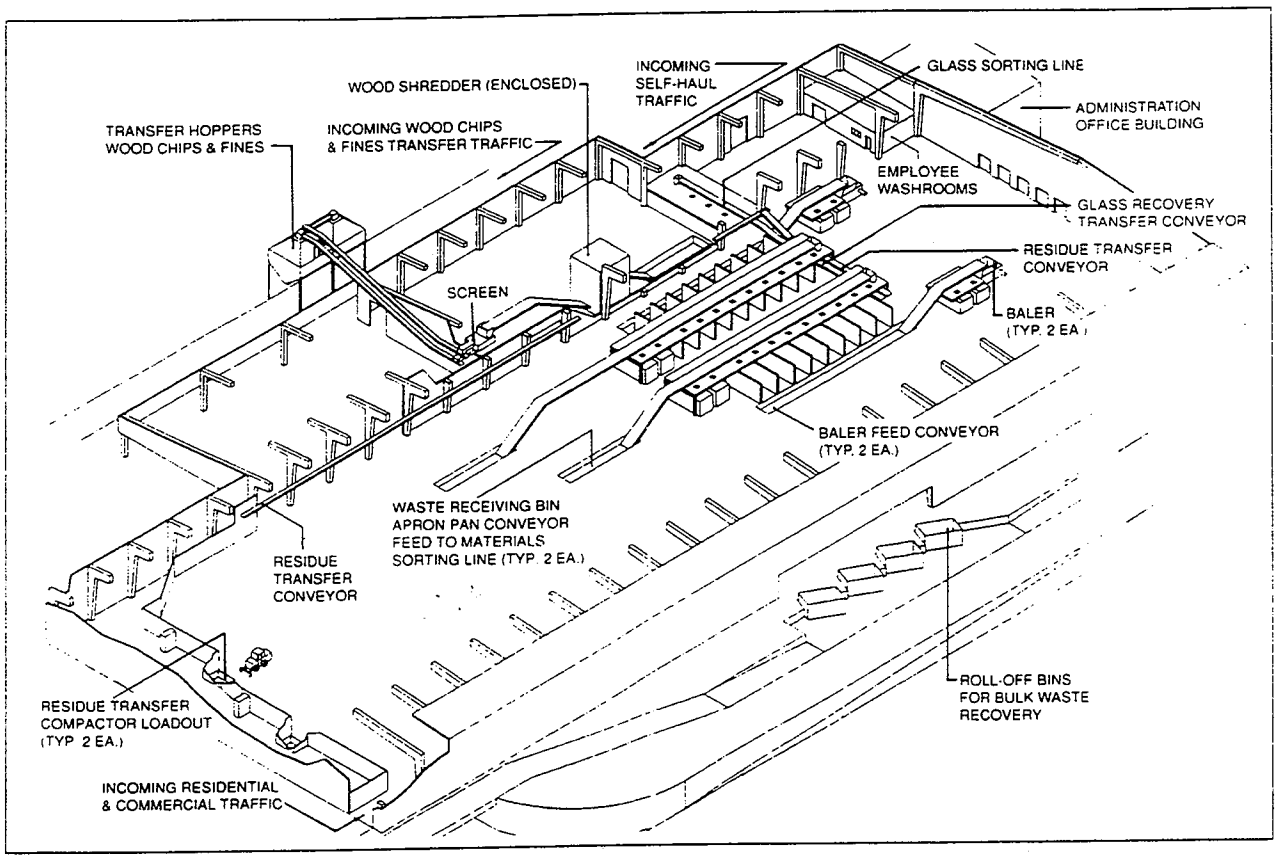
Following are a few examples of relevant projects.

Project: **Northern California Materials Recovery/ Transfer Station Design**

Client: **Private Company, Bay Area, California**

Scope: BVA is providing complete consulting services to a private landfill developer, for the siting, permitting, and engineering of a 2,500-ton-per-day materials recovery/transfer station to be located near Martinez, California. The project includes a 94,000-square-foot transfer/recovery building, weighing station, administration building, vehicle maintenance shop, recycling and materials recovery systems, and space for additional resource recovery systems. Services we have provided to date include system selection and configuration, siting recommendations, traffic analysis, design, economic analyses, and preparation of technical reports and presentations in support of permit acquisition. We are currently providing on-site construction management.

To provide a better frame of reference for the public, elected officials, and regulatory agents, BVA developed this three-dimensional conceptual model of a materials recovery facility.



BVA managed the design and is overseeing the construction of this 1,900 ton-per-day facility. The facility is designed to allow smooth transition from ongoing transfer operations to increased material recovery.

BVA is also providing technical assistance in the operation of a yard debris composting demonstration project at the landfill site. Based on the results of this pilot study, we will incorporate a full scale composting program into the design of the materials recovery facility.

Project: **Waste Recovery System Procurement**

Client: **City of Sacramento, California**

Scope: BVA developed a three-step procedure for identifying and procuring a 2,300-ton-per-day materials recovery and composting system to meet AB 939 requirements and the city's recycling goals. We helped to prepare engineering documents and a full-service vendor contract. We are assisting the city in negotiations with a vendor to design, build, and operate the multifaceted materials recovery system.

Project: **Materials Recovery Facility**

Client: **City of Springfield, Missouri**

Scope: After completing the first phase of services to procure a 500-ton-per-day materials recovery facility, BVA is now assisting the city in negotiating a contract with a vendor to construct and operate the facility. We are also preparing a third-party engineering review to support a bond issue. Our report analyzes the facility's technol-

ogy, design and cost, and reviews environmental markets and waste supply issues. This materials recovery facility was identified in an integrated solid waste plan that BVA drafted for the city in 1990.

Project: **Materials Recovery/Transfer System Planning and Siting**

Client: **San Diego County, California**

Scope: BVA prepared a plan to site a network of recovery and transfer stations in the north area of San Diego County to handle up to 6,000 tons of solid waste per day. Our preliminary studies indicated three to seven transfer stations would be needed to serve the area's population. Our planning emphasized integration with the existing recycling system and increased recycling opportunities in support of county and state waste reduction goals. We determined the number, location, and size of transfer stations; established recycling and hazardous waste programs; determined operational characteristics and impacts; and developed a program implementation plan. In 1991 BVA was selected by San Diego County as part of an engineering team to permit and design three of the facilities.

Project: **Countywide Recovery and Disposal System Implementation**

Client: **Riverside County, California**

Scope: BVA conceptualized a countywide system of materials recovery facilities, composting facilities, recycling centers, and landfill improvements to meet the county's needs through 2000. We used extensive economic analyses to determine the optimal groupings of facilities. Based on this plan, a series of facility procurement and bond issues will be developed. The first procurement and bond issue is underway.

Project: **Materials Recovery Facility in Southern California**

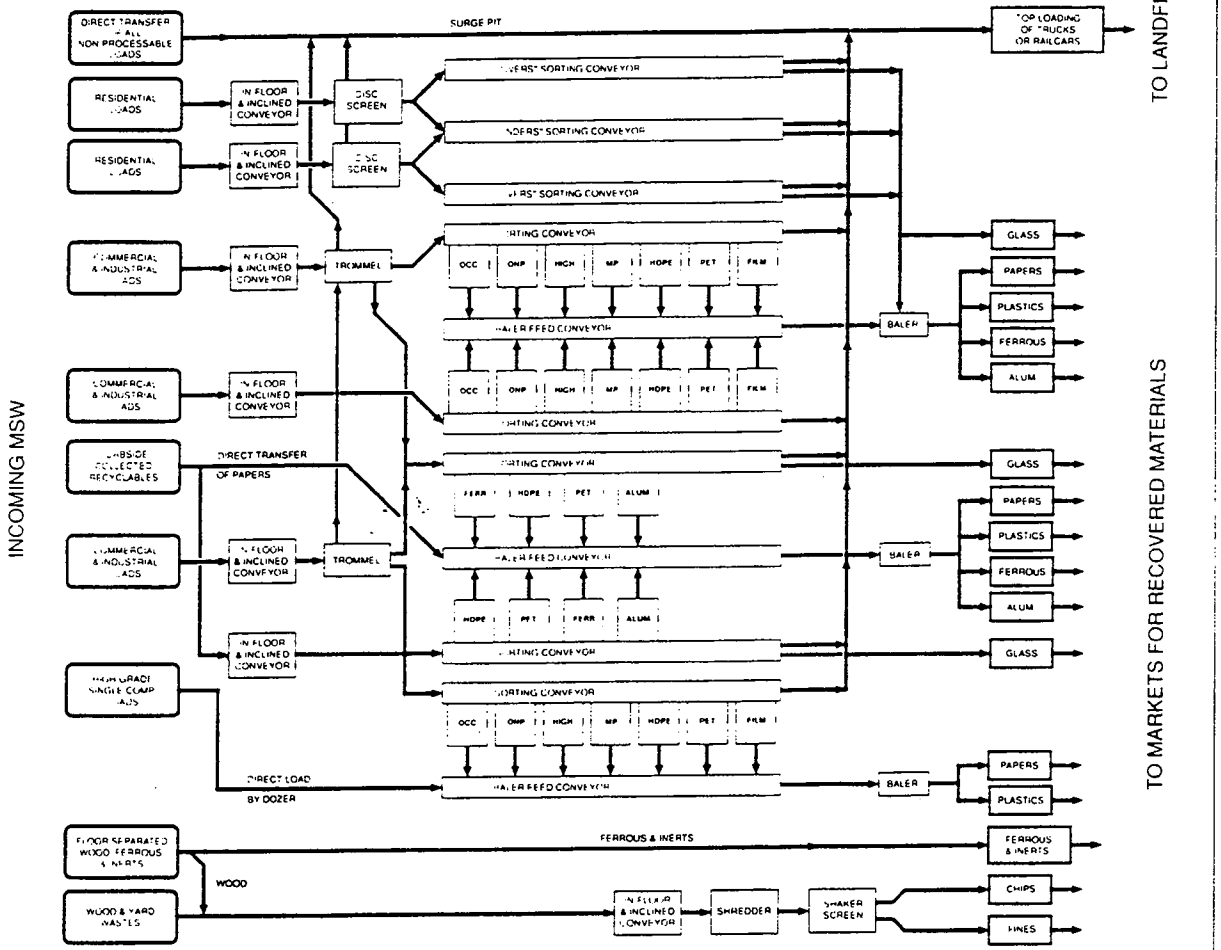
Client: **Private Company**

Scope: BVA is providing engineering, cost estimation, economic analysis, and general business planning services for a 5,000-ton-per-day materials recovery facility in San Bernardino County, California. The facility, scheduled for operation in 1994, will include truck and rail transfer and state-of-the-art recovery technologies such as a sophisticated mechanical and manual recovery system.

Project: **Materials Recovery Facility and Composting Facilities Plan**

Client: **Alameda County Waste Management Authority, California**

Scope: BVA is supporting the Authority in the development of a countywide system of materials recovery and composting facilities. Our plan evaluated various subregional groupings of municipalities to determine the most economical sizing and location of facilities. We also considered various institutional arrangements for system implementation and provided the Authority with a detailed action plan.



Flow Diagram of Processing Activities in a Materials Recovery Facility

As part of BVA's system improvement work we analyze waste sources, waste supply and the impact of process technology on overall project economies.

Project: **Third Party Engineering Reviews for Materials Recovery Facilities**

Client: **Various Financial Institutions and the California Pollution Control Financing Authority**

Scope: BVA has provided technical, environmental, and economic assistance to numerous financial institutions in support of the financing of more than $2 billion of waste management and energy projects. These projects include materials recovery facilities, transfer stations, landfills, and waste-to-energy facilities. Our services include independent engineering reports, design and construction monitoring, performance testing, operations monitoring, troubleshooting, and litigation support.

Representative Clients

California Municipal Governments and Agencies

- Alameda County
- California Energy Commission
- California Integrated Waste Management Board
- City and County of San Francisco
- City of Berkeley
- City of Glendale
- City of Sacramento
- Del Norte County
- Department of Conservation
- Fresno County
- Humboldt County
- Riverside County
- San Diego County
- San Mateo County
- Sonoma County

Other Governments

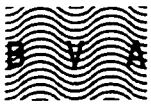
- Champaign and Urbana Counties, Illinois
- City of Olympia, Washington
- City of Springfield, Missouri
- Lake of the Ozarks, Missouri
- Mercer County, Pennsylvania
- Salt Lake City and County, Utah
- State of Hawaii

Private Industry

- Acme Fill Corporation, Bay Area
- Kaiser Steel Resources, Inc.
- Oakland Scavenger Company
- Pacific Gas and Electric Company
- Richmond Sanitary Service
- Sanitary Fill Company
- Stockton Scavenger Company
- Waikoloa Beach Resort, Hawaii

Financial Institutions

- AT&T Credit Corporation
- Bank of California
- California Pollution Control Financing Authority
- CIT Group
- Citicorp
- National Westminister Bank
- Sanwa Bank
- Security Pacific Bank
- State Street Bank
- Swiss Bank
- US West Capital
- Westinghouse Capital



Brown, Vence & Associates

San Francisco Sacramento

Printed on recycled paper

APPENDIX F

LOS ANGELES COUNTY SOLID WASTE MANAGEMENT ACTION PLAN DATED APRIL 5, 1988

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (818) 458-5100

THOMAS A. TIDEMANSON, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O.BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

ADOPTED APRIL 5, 1988

March 25, 1988

IN REPLY PLEASE REFER TO FILE WM-2

SOLID WASTE MANAGEMENT ACTION PLAN

EXECUTIVE SUMMARY
3 VOTE

Request: Reaffirm the Board's policy of managing solid waste in the County through a reasonable balance of public and private operations and facilities, including a regional public landfill system.

Adopt a policy providing for 50 years of permitted landfill capacity to be held in public ownership and with appropriate land use protection.

Instruct the Director of Public Works (DPW) and Chief Administrative Officer (CAO) and request the Chief Engineer and General Manager of the Sanitation Districts (CSD) to conduct certain studies in reference to the "Preliminary Alternative Site Study". In concert with the CSD's Joint Refuse Trust Fund, authorize the use of the County Refuse Disposal Trust Fund to conduct these studies.

Request City of Los Angeles to proceed with development of Toyon II Landfill. Also request the City, the CSD's Board to support the action plan and participate equally with the County in the cost of feasibility studies.

Support the Countywide recycling, composting and household hazardous waste collection programs; direct billing for refuse services; Statewide education programs; and expansion of Chiquita, Scholl, and Sunshine Canyons as well as Azusa Western and Puente Hills Landfills.

Fiscal Impact: County Refuse Disposal Trust Fund will be used for preliminary studies associated with the implementation of the action plan. County General Funds will not be utilized.

Issues: On September 22, 1987, the Board instructed the DPW and CAO, with the assistance of the CSD, to review the solid waste management problem in the County and report regarding the solid waste management options, economic considerations, and the identification of the best sites for future landfill capacity. The action plan addresses these issues and provides recommendations to resolve the solid waste management crisis in the County.

MMM:maly/ES-SWMAP

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (818) 458-5100

THOMAS A. TIDEMANSON, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O.BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

IN REPLY PLEASE
REFER TO FILE

March 25, 1988

WM-2

Honorable Board of Supervisors
County of Los Angeles
383 Hall of Administration
500 West Temple Street
Los Angeles, California 90012

Dear Supervisors:

SOLID WASTE MANAGEMENT ACTION PLAN
ALL DISTRICTS

RECOMMENDATIONS:

That your Board:

1. Reaffirm its policy of managing solid waste in Los Angeles County through a reasonable balance of public and private operations and facilities including a regional public landfill system.

2. Adopt a policy providing for 50 years of permitted landfill capacity to be held in public ownership, with appropriate land use protections, for use through public, private or public/private joint venture operations as necessary to achieve the policy in Recommendation No. 1.

3. Instruct the Director of Public Works and Chief Administrative Officer and request the Chief Engineer and General Manager of the Sanitation Districts to immediately initiate concurrently studies necessary to determine the feasibility of public ownership and permitting of landfill sites identified in the alternate site study; initiate discussions with property owners regarding availability of property; secure purchase options as appropriate; utilize the County Refuse Disposal Trust Fund and the Districts Joint Refuse Trust Fund for these efforts; and recommend further Board action as studies are completed for public acquisition and permitting of landfills at these sites.

4. Support the Countywide implementation of residential and commercial recycling and composting programs and a household hazardous waste program, and instruct the Director of Public Works, Director of Health Services, Fire Chief, Chief Administrative Officer and County Counsel, with the assistance of the County Solid Waste Management Committee, to recommend specific actions to the Board to achieve implementation including ordinances, licensing requirements and legislative requirements.

5. Request each city in the County to provide for each household, whether single or multi-family residences, and each business to be billed directly for the full cost of refuse collection and disposal.

6. Support implementation of Statewide public education/awareness programs regarding solid waste issues and the necessity for recycling.

7. Support the revision of all existing permits at the Azusa Western, Chiquita Canyon, North Valley (Sunshine Canyon), Puente Hills and Scholl Canyon Landfills to provide for the maximum, technically and environmentally feasible expansion of these sites, and instruct the Director of Public Works, Director of Health Services and Chief Administrative Officer to actively participate with the owners/operators and permitting authorities of these sites in securing the permit revisions at the earliest possible date.

8. Request the Council and Mayor of Los Angeles to proceed with actions necessary to open the Toyon II landfill and expand Lopez Canyon Landfill to fully realize the available capacity at these locations.

9. Request the Council and Mayor of Los Angeles and the Sanitation Districts Boards to support this action plan and participate equally with the County in the cost of feasibility studies, and request these agencies, in cooperation with the Director of Public Works and Chief Administrative Officer, to recommend a method of financing acquisition of landfill capacity.

BACKGROUND

On September 22, 1987, the Board instructed the Department of Public Works and Chief Administrative Officer, with the assistance of the Sanitation Districts, to review the solid waste management problem in the County and report regarding the solid waste management options, economic considerations, and the identification of the best sites for future landfill capacity. The following enclosed reports have been prepared, discussed in detail with Board members and summarized below:

-- "Executive Summary - Solid Waste Management Status and Disposal Options in Los Angeles County"

-- "Preliminary Alternate Site Study"

EXECUTIVE SUMMARY

This document summarizes a detailed report on the existing solid waste management system and options for the future management of the County's waste, including the economics of each option. The information was developed by the Sanitation Districts, Department of Public Works, and City Bureau of Sanitation

and represents the first time in recent years that the technical staffs of these three agencies have concurred in such a broad range of solid waste management data. The full report, which is available upon request and includes a "Time to Crisis Analysis", is summarized for your convenience in the enclosure. The major facts are as follows:

-- By 1992, 6,400 tons per day of waste will have no place for disposal unless new facilities are sited or existing landfills are expanded. This will increase to 50,000 tons per day by the year 2000.

-- Currently, 5,400 tons per day of waste are exported from the City of Los Angeles.

-- The City of Los Angeles will have no disposal capacity remaining within the City by 1997.

-- Implementation of Countywide residential recycling, landfill recycling and composting programs with 100 percent participation and efficiency will reduce the total wastestream optimistically by 27 percent. Realistically, it is projected that recycling and composting will reduce the total wastestream by 10 percent.

-- Expansion of existing landfills and siting of new landfills close to the metropolitan area will result in total disposal costs of $250 to $550 million annually as compared to $550 to $900 plus million annually for remote sites or very remote sites with rail haul.

-- It is important to note that the cost projections are extremely conservative. For instance, estimated waste management fees are calculated on a cost driven basis and do not reflect possible dramatic increases in fees, as has occurred in other portions of the United States, due to market forces as disposal capacity becomes a scarcer resource.

ALTERNATIVE SITE STUDY

On September 22, 1987, the Board requested the Department of Public Works, Chief Administrative Officer and Sanitation Districts to identify the five best landfill sites currently not being used in the County. This study consisted of a three-phase approach which considered a complex set of technical, environmental and social factors to analyze 101 potential landfill sites. The six highest ranking potential sites are presented in the report.

RECOMMENDED ACTION PLAN

Considering the three to seven years required to implement any additional disposal capacity, the projected crisis of 1992 is actually a crisis today. In my opinion, the Board must make hard and probably unpopular decisions now if the crisis is to be abated. Unless you are willing to increase waste disposal costs by 125 percent or more and shift the responsibility of waste disposal facilities to neighboring counties, your long-term options are to:

-- site new landfills in the metropolitan area, or

-- site new landfills in the metropolitan area and construct waste-to-energy facilities.

In the short run, I believe that implementation or recycling and composting programs and expansion of existing landfills is a necessity, not an option.

It is important to emphasize that there is no single program solution or single site or site expansion that will abate the crisis in the short or long term.

We must proceed immediately on several fronts as set forth in the recommendations. The situation we face today is nearly identical to what was faced in the 1950's when the Board initiated the regional public landfill system, with the exception that we have 30 years experience and the public's environmental sensitivity is substantially greater. The experience has shown that a combination of public and private operators has worked well and a reasonable balance of public and private operations is an effective means of controlling disposal costs. Landfill technology and regulations have advanced environmental safeguards substantially such that design and operational measures can make landfills technically and environmentally compatible with any adjoining land use.

Although all the recommendations are integral to solving the crisis, the key to the long-term solution is Recommendation No. 2--50-year landfill capacity in public ownership, permitted for landfill use and protected from incompatible, adjacent land uses. Substantial study and discussions with landowners is necessary to determine if the identified sites are suitable for landfill purposes. By adopting the recommendations, the Board will authorize us to proceed with this work and report to the Board with further recommendations on acquisitions as studies are completed.

The Chief Administrative Officer concurs in this recommended action plan. I cannot stress enough the need to proceed with this effort. Upon approval, we will keep the Board advised of progress and report back with further recommendations as soon as possible.

Respectfully submitted,

for T. A. TIDEMANSON
Director of Public Works

JM:cr/SWMAP

Enc.

cc: Chief Administrative Office
County Counsel
County Sanitation Districts of Los Angeles County
City of Los Angeles, Bureau of Sanitation

APPENDIX G

ORDINANCE OF THE COUNCIL OF THE CITY OF GLENDALE REGARDING DISPOSAL OF REFUSE

ORDINANCE NO. 4855

AN ORDINANCE OF THE COUNCIL OF THE CITY OF GLENDALE REGULATING DISPOSAL OF REFUSE

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF GLENDALE:

SECTION 1. Division 4, Article IV of Chapter 24 of the Glendale Municipal Code, 1964, is amended to read:

Sec. 24-40. Disposal of Refuse, Prohibition. No individual, partnership, committee, association, corporation, public agency, public entity or any other organization or group of persons, public or private, shall dispose or tender for disposal within the City of Glendale, any refuse or waste which has its origin within any city which either owns, operates, maintains or regulates a Class I or Class III non-restricted sanitary landfill as defined by the State Water Resources Control Board, or is entitled to the use or possession of a Class I or Class III non-restricted sanitary landfill site within its municipal limits. Furthermore, a wasteshed area is hereby identified as the only geographical area and the communities within, permitted to use Scholl Canyon Landfill for the disposal of acceptable wastes that originate within said area. The Director of Public Works shall restrict or limit the use of Scholl Canyon landfill to any community in the defined wasteshed area who fails to undertake and implement waste reduction measures approved by the Director of Public Works and aimed at limiting the amount of refuse deposited at Scholl Canyon Landfill. The wasteshed area is specifically described as the Los Angeles County incorporated cities of Glendale, La Canada Flintridge, Pasadena, South Pasadena, San Marino, and Sierra Madre; the Los Angeles County unincorporated communities known as Altadena, La Crescenta,

Montrose; the unincorporated area bordered by the incorporated cities of San Gabriel, Rosemead, Temple City, Arcadia and Pasadena; and the unincorporated area immediately to the north of the City of San Marino bordered by the City of Pasadena on the west, north and east sides.

SECTION 2. This ordinance shall become effective on August 10, 1989.

Adopted by the Council of the City of Glendale on the 11th day of July, 1989.

Mayor

ATTEST:
Aileen B. Boyle, City Clerk

City Clerk

STATE OF CALIFORNIA)
)SS
COUNTY OF LOS ANGELES)

I, AILEEN B. BOYLE, City Clerk of the City of Glendale, certify that the foregoing ordinance was passed by the Council of the City of Glendale, California, at a regular meeting held on the 11th day of July, 1989, and that the same was passed by the following vote:

Ayes: Bremberg, Jutras, Raggio, Zarian, Milner
Noes: None
Absent: None

Aileen B. Boyle,
City Clerk

APPENDIX H

COMMENTS ON THE PRELIMINARY DRAFT SRRE

The Response to Comments Section of this SRRE include comments made by the CIWMB, Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force, adjacent cities, adjacent counties, and public comments made at the public hearings for the preliminary draft SRRE.

The DPW has prepared the Response to Comments Section and has revised affected portions of the SRRE to substantially address the important issues raised. Included as a part of our Response to Comments Section are the Responses to CIWMB Comments, prepared by our consultants, EcoSource International and EMCON Associates, for their portions of the SRRE.

gswp3/MJB7

APPENDIX H

H-1:	California Integrated Waste Management Board Comments
H-2:	Response to California Integrated Waste Management Board Comments by Component
H-3:	Response to California Integrated Waste Management Board Comments by Consultants
H-4:	Adjacent Cities' and Counties' Comments
H-5:	Response to Adjacent Cities' and Counties' Comments
H-6:	Comments made by the Public at the Public Information meetings for the Preliminary Draft Source Reduction Recycling Element
H-7:	Review and Comments by the Los Angeles County Solid Waste Management Committee/ Integrated Waste Management Task Force
H-8:	Response to Comments from the Los Angeles County Integrated Waste Management Task Force

DAVE\APPENDIX H

APPENDIX H-1

CIWMB Comments

STATE OF CALIFORNIA

Pete Wilson, Governor

CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD
8800 Cal Center Drive
Sacramento, California 95826

April 7, 1992

Mr. David Yamahara
Assistant Deputy Director
County of Los Angeles
Department of Public Works
Waste Management Division
900 South Fremont Avenue, 5th Floor
P. O. Box 1460
Alhambra, CA 91802 -1460

RE: Board Comments on the County of Los Angeles' Preliminary Draft Source Reduction and Recycling Element for the Unincorporated Area of Los Angeles County

Dear Mr. Yamahara:

California Integrated Waste Management Board (Board) staff have reviewed the County of Los Angeles's Preliminary Draft Source Reduction and Recycling Element (SRRE) for compliance with Chapter 9, Title 14 of the California Code of Regulations, the Planning Guidelines and Procedures for Preparing and Revising Countywide Integrated Waste Management Plans. Below are comments applicable to the document in general. Attached to this letter are staff comments specific to each of the components, organized by SRRE component section. These comments, and all other comments received by Los Angeles County, should be addressed in the revised SRRE.

GENERAL COMMENTS:

Although the Executive Summary, Introduction, and Attachment ES-1, and the Glossary and definitions were not required by our regulations, staff found them helpful in our review. It was noted that the County of Los Angeles intends to take the mandates and intent of AB939 seriously and plan accordingly with dedicated staff and revenues. Board staff acknowledges the complexity of the undertaking in producing a SWGS for the unincorporated County of Los Angeles and commends the County for this effort in fulfilling this task.

The review of the County of Los Angeles's document has identified certain, though not necessarily all, areas of possible concern. While some appear to be merely lack of clarity, others may have more serious ramifications. In the revised SRRE, please address:

* the discussion required by the regulations for each alternative in the components, specifically CCR Sections 18733.2, 18733.3, 18735.2, 18735.3, 18736.2, and 18736.3;

* the availability of program specific data on existing conditions to adequately assess the effectiveness of particular programs and evaluate the appropriate course of action;

* the ability to quantify source reduction efforts in the future;

* contingency plans in case envisioned hauler or processor roles cannot be fulfilled;

* the selection of a green waste diversion program that may not be eligible to count toward diversion goals.

While it is recognized that planning is often partly based on many intangible concepts (i.e.- politics, social trends, third party effects, etc.), staff hopes that the above concerns will solicit a thorough analysis of available information to insure that the appropriate course of action has been selected. Also please remember that the SRRE is a planning document, and as such should be flexible in its implementation. Contingencies may be needed to also account for changes in population, waste loadings, legislation, etc.

In the revised SRRE, please include either the Environmental Information Form, the Environmental Checklist Form, the Notice of Preparation, and the Negative Declaration, or provide documentation that the documents have been circulated through the State Clearinghouse for agency review.

If you have any questions about our comments, please contact me at (916) 255-2555, or Lloyd Dillon at (916) 255-2311.

Sincerely,

Judith J. Friedman

Judith J. Friedman, Manager
Local Assistance Branch, South Section
Planning and Assistance Division

cc: LA Co. LTF

Los Angeles County - Unincorporated Area SRRE
CIWMB COMPONENT-SPECIFIC COMMENTS

In the following comments on the preliminary draft SRRE, please note that all comments which include a reference to the CCRs or to the PRC concern regulatory or statutory requirements and should be fully addressed in the revised SRRE. Other comments are Board Staff suggestions based on technical review and are provided for your consideration. The exception to this, which should be fully addressed, is a request for missing information, a definition, or to clarify a discussion.

esponse #s **SOLID WASTE GENERATION STUDY and ANALYSIS (Section 2)**

1 o Please identify all permitted transfer stations, permitted solid waste transformation facilities and permitted solid waste disposal sites used by the County of Los Angeles for the unincorporated area, as required by CCR Section 18722(i). Solid wastes placed in illegal dumps or unpermitted landfills cannot be counted as a part of the total solid waste generated (or disposed) in the SWGS [CCR section 18722(g)(1)].

2 o PRC Section 41780 excludes inert solids, agricultural wastes, scrap metals, white goods and sludge from the definition of solid waste, except those "...which were disposed of at a permitted disposal facility as of January 1, 1990, which are diverted and which are recycled, composed or reused." Therefore please account (e.g. landfill records) for the presence of the above named items in the landfill(s), so that diversion credits could be applied to them.

3 o In your SWGS, please include an outline of a system for gathering data on the quantities and composition of solid waste generated, diverted and disposed, which states when, and from whom reports will be collected, as required in CCR Section 18722(o).

4 o The discussion on seasonal variation does not provide the information required by the regulations. Quantifying seasonal variations in the solid waste stream is accomplished by identifying distinct cyclical patterns of local climate, demography, trade or commerce as per CCR Sections 18720(65) and 18722(i)(2); seasonal variation is not only in reference to specific calendar seasons (i.e., fall, winter, etc.). After identifying the seasonal variations, the jurisdiction selects the 6-month sampling period that satisfies the requirements of PRC Section 41780(a)(1). The jurisdiction identifies the number of seasons that occur within the 6-month sampling period and states how many times each identified season was sampled (e.g., two seasons identified in the 6-month period with one week of sampling in each season). Please state the 6-month sampling period selected, the number of seasons identified in that period, and the number of times each season was sampled.

5 o For solid waste disposed in permitted landfills, please report the quantity in both weight and in-place volume (in the landfill) [CCR sec.18722(f)(4)].

o The SWGS contains numerous references to Appendices B and C. These large appendices contain many smaller appendices. When referencing these large appendices please identify the specific appendix that is being referenced, such as B-6, B-9, or C-5, rather than just Appendix B or C. This will greatly assist the reader in locating the appropriate appendix in a timely manner.

Response #s

- o Data for the unincorporated County were produced from six Integrated Waste Management Working Groups that were conducting independent waste generation studies. Board staff's primary request is that a more detailed explanation be provided that describes how the data from these six Working Groups were combined and consolidated to produce the SWGS for the unincorporated County. The information contained in the Preliminary Draft SWGS does not provide a sufficient explanation of this crucial step in developing the SWGS.

6 **Page 2-7,** 2.3.1.1 Private Services:
Surveys were sent to all waste haulers to obtain information on disposed waste amounts. Please provide a discussion on the number of usable responses received from the haulers to support the position that the data are representative of the jurisdictions's waste stream [CCR Section 18722(h)].

7 **Page 2-9,** 2.3.1.3 Marine Waste Disposal:
Marine wastes are collected from the beaches and harbors of Manhattan Beach and Hermosa Beach. Please identify the jurisdiction(s) in which these beaches and harbors are located. If the beaches and harbors are within the jurisdictions of Manhattan Beach and Hermosa Beach than the waste generated in these locations should be included with the waste amounts disposed by these jurisdictions, regardless of the jurisdiction that collects the waste. The unincorporated County need only identify and quantify the marine waste that is generated within its jurisdictional boundaries [CCR Section 18722(i)(3)].

Page 2-9, 2.3.1.4 Street Sweepings:
Board Staff could not determine if the 18,481 tons of street sweepings collected annually by the Department of Public Works were incorporated into the waste disposal data. This amount was excluded from Table 2-6 to avoid "double counting". Please address this in the revised SRRE.

8 **Page 2-11,** 2.3.3 Solid Waste Generation:
This section contains a discussion of the methodology used to ascertain the waste composition. However, this discussion did not provide Board staff with a sufficient understanding of how waste composition was determined. Please clarify the following points:

9 ▸ In the paragraph that begins, "Field data for the unincorporated County..", please explain the relationship between the waste composition of the unincorporated County and the data from a group of cities in the Working Groups. Were field samples collected from the unincorporated County's disposed waste or is the composition of the unincorporated County's disposed waste based on comparable data?

10 ▸ The succeeding paragraphs, "The solid waste composition study was designed to take advantage of the similarities..", and "An average of the aggregate data..", imply that waste composition data from the working group cities were used as comparable data to determine the unincorporated County's disposed waste composition. A jurisdiction may use pre-existing solid waste generation studies as comparable data to estimate its waste generation (Generation = Disposal + Diversion) composition. This implies that the composition of the total waste generated in one jurisdiction is comparable to the composition of the total waste generated in the other jurisdiction. Because different diversion practices can and will exist between jurisdiction, the composition of disposed waste may not be comparable.

Response #s

11 It is therefore recommended that waste stream composition estimates which are derived from comparable data be based on the composition of the total waste generated composition rather than on the composition of the waste disposed. The jurisdiction could then determine its waste disposal composition by adjusting the comparable generation composition data based on the composition of its own diversion data. See page 1 of **Attachment 1A** on Comparable Jurisdiction Data for a discussion and an example of using comparable data.

12 ▸ A jurisdiction using a SWGS or data from another jurisdiction with similar demographic, economic, and solid waste characteristics shall list and describe in its SWGS all the major characteristics which are similar between the two jurisdictions [CCR Section 18724(c)]. See page 2 of **Attachment 1A** on Demonstrating Comparability for discussion and examples of this subject.

13 ▸ The composition of the disposed waste for the unincorporated County was determined from aggregated data contained in Appendix B (B-5?). This appendix contains data from Groups C3, C1, C2, R3, and R1 cities. Staff interprets C to denote the commercial sector and R to denote the residential sector. However, the industrial sector is not represented in this data. Please provide a discussion on the methodology for determining the composition of the disposed industrial waste. Also, please explain or clarify the relationship between these Group Cities and the six Working Groups identified on pages 2-3/4.

14 ▸ Marine waste composition data resulted from two samples and the data are referenced as being presented in Appendix B. The data are actually contained in Appendix C-5 rather than Appendix B. Please correct this oversight. Also, the total average weight of the two samples was only 53.4 pounds. Please provide a discussion on how only two samples of such low weight can provide data that is indeed representative of the composition of marine waste [CCR Section 18722(h)].

15 **Page 2-11,** 2.3.4 Field Sampling Procedures:
The text states that the sampling procedures used for each of the Working Groups are described in Appendix C. However, no sampling methodologies for Working Groups 1, 2, and 6 are contained in Appendix C. Please provide a discussion on the sampling methodologies for these Working Groups, or include an explanation of how the waste composition for these working Groups was determined. In addition, if in fact, field samples were collected for calculating the disposed waste composition of the unincorporated County, staff cannot determine the total number of samples collected.

16 Appendix C-3 contains field sorting data but there is no explanation of how this data was generated or how it relates to the data contained in Appendix C-5. Please clarify this matter.

17 Appendix C-5 contains the methodologies used by Working Groups 3, 4 and 5. Working Groups 3 and 4 used the Klee and Carruth method to determine the number of samples to collect from each waste generation sector. A comprehensive review of the sampling methodology by Board staff revealed several areas that require clarification or additional data. Please address the following topics:

18 Working Group 3 - South Bay Area

1) The calculations for determining the sample number for the residential, commercial and industrial sectors were based on the assumption that the single largest waste type was paper or yard waste and the percent composition would be in the range of

Response #s

35 percent. The Klee and Carruth method requires a jurisdiction to estimate its percent waste composition by use of existing published data 315 about the jurisdiction, and/or published data on percent waste composition from other jurisdictions. The source of this value shall be stated in the waste generation study [CCR Article 6.1 Appendix 1(ii)]. Please describe the methodology followed in applying this method and show the calculations for determining the sample numbers.

19 2) The sample size formula used for the Klee and Carruth method is contained in Appendix C-1. Board staff questions the validity of the precision level (Δ-delta) used in this formula. The precision level of 0.04 was selected for the residential sector and a level of 0.05 was selected for the commercial and industrial sectors. Why was a precision level of 0.02 used in your formula? Is the Δ value used for calculating σ, based on the precision level desired or the confidence interval desired? Please show how the formula in Appendix B-2 is equivalent to the formula in CCR Article 6.1, Appendix 1, 2.a.(ii).

20 3) Sample sizes were calculated using a standard deviation (SD) of 0.10 for residential waste and 0.20 for commercial and industrial wastes. The SD (z and s values), remain constant (1.645 and 0.1632, respectively) in the Klee and Carruth formula and are based on a sample weight of 200 pounds or more. Using SD values other then the constants intended to be applies with the formula and the use of sample weights significantly less than 200 pounds, does not provide data that can be considered representative based on the Klee and Carruth method. As a result of altering the SD values in the formula and applying it to low sample weights, Board staff does not consider the method used can accurately be termed Klee and Carruth, and request that the SWGS not refer to this method as Klee and Carruth.

21 4) The residential sector represents 49% of the quantity of solid waste disposed page 2-5A, Figure 2-1). Yet, only four residential samples were collected. These four samples had a mean weight of 161.5 pounds, significantly below the minimum 200 pounds per sample recommended by the Klee and Carruth method. Page 2-12 (Appendix C-5) states,"A minimum target weight of 200 pounds per sample was set for the sampling program." Staff questions whether or not the small sample number and weights provide data that are indeed representative of the residential sector. For these data to be acceptable, one must show how it was determined that four samples with a mean weight significantly below 200 pounds would result in representative data for that sector [CCR Section 18722(h)]. In addition, Table 2-4 shows that six samples should have been taken when the highest composition is 35%. Board staff calculated that the Klee and Carruth method, based on a 0.04 precision level, would require the collection of 10 samples.

22 5) The mean commercial sample weight is 97.9 pounds and the mean industrial sample weight is 148.8 pounds. Page 2-12 (Appendix C-5) states " A minimum target weight of 200 pounds per sample was set for the sampling program". Please explain how samples weighing significantly less than 200 pounds were considered acceptable in meeting the stated minimum target weight. For these data to be acceptable, one must show how such low sample weights can provide data which are representative of the waste composition of the two sectors [CCR Section 18722(h).

Response #s

Working Group 4 - East San Gabriel Valley Area

23 1) Same comments as for Group 3, #1.

24 2) The sample size formula used for the Klee and Carruth method is contained on page 2-9. Board staff questions the validity of the precision level (Δ-delta) used in this formula. A precision level of 0.05 was selected for use in the formula. However, a precision level of 0.02 was shown as being used in the formula? Is the Δ value used for calculating σ, based on the precision level desired or the confidence interval desired? Please show how the formula in Appendix B-2 is equivalent to the formula in CCR Article 6.1, Appendix 1, 2.a.(ii).

25 3) Sample sizes were calculated using a standard deviation (SD) of 0.20. The SD (z and s values), remain constant (1.645 and 0.1632, respectively) in the Klee and Carruth formula and are based on a sample weight of 200 pounds or more. Page 2-10 states that, "A minimum target weight of 200 pounds per sample was set for the sampling program". The samples collected from the commercial sector had a mean sample weight of 178.1 pounds (Table 2-7). Using different SD values then the constant values intended and applying the formula to sample weights less than 200 of pounds, does not provide data that can be considered representative based on the Klee and Carruth Method. As a result of altering the SD values in the formula and applying it to low sample weights, Board staff does not consider the method used can accurately be termed Klee and Carruth, and request that the SWGS not refer to this method as Klee and Carruth.

Working Group 5 - Southeast Area

26 1) Table 2-6, page 2-15) indicates that the residential sector was divided into three sub-groups. Please provide an explanation for why sub-groups were used and how the unincorporated County is represented within the sub-groups.

27 2) A total of 7 residential samples and 9 commercial samples are listed in Table 2-6. Please clarify if these samples were to represent the amount collected for the unincorporated County or were the samples aggregated into a pool of data that represent all the jurisdictions within Subgroup 1. If the samples represent the aggregate waste from all the jurisdictions within Subgroup 1, please discuss the method used to disaggregate the data to represent the unincorporated County [CCR Section 18722(f)(5)].

28 3) Table 2-6 does not include any reference to the industrial sector. Please provide information on the number of samples collected for the industrial sector, and the sample weights, to support the position that the data are representative [CCR Section 18722(h)]. If the samples represent the aggregate waste from all the jurisdictions within the Working Group, please discuss the method used to disaggregate the data to represent the unincorporated County [CCR Section 18722(f)(5)].

Response #s

29 4) "Agricultural wastes were sorted into other organics." This practice is acceptable only if neither "agricultural wastes" or "other organics" are targeted in an existing or planned agricultural waste diversion program. Specific requirements are addressed in PRC Section 41781 for the diversion of agricultural wastes. In addition, only those waste types identified in the initial SWGS can be counted towards the statutory diversion mandates [CCR Section 18724(d)].

30 5) An analysis of variance (ANOVA) procedure was conducted on waste disposal data of Santa Fe Springs and subgroup 1 jurisdictions. Data from Santa Fe Springs were considered comparable data. However, no information was provided that demonstrated the comparability of Santa Fe Springs and the unincorporated County. The information that was presented compared Santa Fe Springs to the subgroup 1 jurisdictions as a whole. Showing comparability to subgroup 1 jurisdictions does not show comparability to the unincorporated County. The regulations on the use of comparable data [CCR Section 18722(l)(4) and 18724(c)] make no allowances for this approach to data management. Staff could not determine why the SWGS chose to use waste composition data from Santa Fe Springs if Subgroup 1 jurisdictions already had composition data available from the waste sort they conducted. Please clarify the reason(s) for using the ANOVA procedure if representative waste sort data for the Subgroup 1 jurisdictions were already available.

31 6) All the jurisdictions within Subgroup 1 have the same percent waste composition for the residential, commercial and industrial sectors' disposed waste. It appears that the aggregate waste sort composition data were not disaggregated to reflect the waste composition of the individual jurisdictions. Please provide a discussion explaining how this method produces representative data since the text has not shown that the jurisdictions within Subgroup 1 have comparable demographics, economics, number and types of commercial/industrial units, or other demonstrations of comparability [CCR Sections 18722(h) and 18724(c)].

32 **Page 2-18,** Table 2-12 :
Please provide a full bibliographic citation for the source of the weight to volume conversion factor contained in this table [CCR Section 18722(f)(4)(A)].

33 **Page 2-21,** Allocation of Data:
Composting facilities were surveyed to obtain estimates on the quantity of wastes collected from the unincorporated County. Public Resources Code Section 40194 includes composting facility in the definition of a solid
waste facility. As such, composting facilities are subject to the permitting requirements of PRC Sections 44001 and 44002. If the local composting facilities are not permitted or are not exempted from the permit requirements, material cannot be considered properly diverted and should not be included when quantifying total diversion. Please clarify the status of these facilities before claiming compost diversion. If a facility is not permitted, then wastes going to that facility cannot be considered properly diverted or disposed and would not be included in quantifying waste generation.

34 **Page 2-22,** 2.4.1.2 Other Residential/Business Recycling and Source Reduction:
Please provide a discussion on the programs and activities responsible for the 5,879 tons of diverted materials listed in Table 2-15, and discuss the methods used to determine these diverted amounts [CCR Sections 18722(h) and (i)].

Response #s

35 **Page 2-23,** 2.4.2 Waste Diversion Survey:
A survey of haulers provided information on the composition and quantity of materials diverted by haulers. Please state the total number of useable responses received from the 250 sent out to show the data are representative [CCR Section 18722(h)].

36 **Page 2-26,** 2.4.3.3 Telephone Survey:
Amounts attributed to source reduction are contained in Table 2-16. However, no calculations or discussion of the methods used to quantify source reduction are included. Please provide information describing how the source reduction amounts were derived and what methods were used to quantify it as required by PRC Section 41033 and CCR Section 18734.2.

37 **APPENDIX B-11** Conversion Factors for Waste Types Please provide explanations of how measurements were obtained for all conversion factors referenced as EMCON In-House values, EMCON Field Data Measurements and EMCON Measured Values [CCR Section 18722(f)(1)]

SOURCE REDUCTION COMPONENT (Section 3)

38 PRC Sections 41050 through 41054 address the requirement for each city SRRE to include a Source Reduction Component. CCR Sections 18733 through 18733.6 identify the contents of the SRRE model component format, generally what each component must address. CCR Sections 18734 through 18734.3 specifically identify additional information to be included or at least addressed in the Source Reduction Component. Please provide the information as required by the code and the regulations.

39 Specifically missing from this component are descriptions of the existing programs, and the types of materials and quantities of materials diverted, by program. Noticeably missing under Section 3.3, Existing Programs, page 3-3, was a discussion of activities undertaken by the private sector. Also, not all the materials listed as "diverted" are accounted for by the activities identified.

Page 3-1, Source Reduction Objectives:
This section only indicates that the County has two medium-term goals, and as such, it is assumed that the objectives listed would relate to the medium-term planning period. There are no goals or objectives specifically mentioned for the short-term planning period. Also, the objectives should have dates for implementation or completion identified as part of the objective. Without dates it would be difficult to measure the objectives effectiveness.

Page 3-20, Program Description:
The Source Reduction program is to be described in section 3.4.3. There was no section 3.4.3 included in Staff's copy of the draft SRRE, as indicated by reference in this section. Discussion of the selected program is required by CCR section 18733.4.

Page 3-20, Existing Programs:
Since no private sector programs were identified in the discussion in Section 3.3, can it be assumed here that no private sector source reduction programs would be continued or expanded? Please expand this discussion to identify the programs slated for expansion.

Response #s

Page 3-24, Estimate of Quantities to be Diverted by the Program:
Section 3.5.4 states that Source Reduction activities would divert 2.65% and 4.33% of the waste stream. Please explain how these diversion estimates correlate to the percentages indicated in Tables 3-5 through 3-8.

Page 3-29, Table 3-9:
Please identify which "County Department" would be the responsible entity. Also, under Alternatives 12, 13, and 14, "Demonstration" sites might be better identified under the specific program, such as Alternative 8.

Page 3-31, Table 3-11:
This table includes the capital and average annual costs for the source reduction programs. This table does not appear to address all the selected programs nor does it include projected costs for the development or design of the selected programs. Please revise the table to include these items.

Page 3-33, Contingency Measures:
None of the steps identify actual contingencies. What programs or plans would the County propose to initiate if the diversions lagged or failed, or if the programs were ineffective? Please respond to the information as required by CCR Section 18740(d)(5).

RECYCLING COMPONENT (Section 4)

Page 4-2, Objectives:
Only the first objective in the short-term and medium-term categories has target dates identified. All objectives should have dates for implementation or completion identified as part of the objective. Without dates it would be difficult to measure the objectives effectiveness.

40 **Page 4-5, Existing Programs:**
Section 4.3 states that there are some established recycling programs in the County. There was no identification of jurisdiction specific recycling programs for the residential, commercial or industrial sectors under this discussion. Are all the sector programs purely voluntary? Also, this section does not identify the materials targeted by each of the existing recycling programs. How are the post-consumer yard and wood waste recycled? Is the wood waste recycled as fuel? What are the "assorted materials" recovered at the transfer stations and in the curbside program?

CCR Sections 18733.2 and 18735.2 identify the scope that the descriptions of existing recycling programs must include. Please expand the discussion to include the required information, or, if that information is included in another component or appendices, please reference that source.

Page 4-37, Existing Programs:
Section 4.4.1.1 states that the existing programs will be expanded. A schedule for expanding or modifying any of the existing programs or for the expansion of the County's programs is not included in the implementation schedule, Table 4-12. Please identify the tasks necessary for expanding these programs and the target start and completion dates.

Response #s

Page 4-37, Curbside Collection:
What are the five curbside recycling programs currently serving the unincorporated area of the county? How many residences does the 44,000 residents represent? What portion of the County's waste stream does 3.4% of the population represent? Please address this in the revised SRRE.

41 **Page 4-37, Buy-Back Centers:**
How many buy-back centers are located throughout the unincorporated area of Los Angeles County, and how many are owned by the County?

Page 4-40, Selected Programs:
Under this section there is no discussion about the countywide curbside collection program mentioned earlier, its expansion, or the County's office paper collection program.

Page 4-41, Alternative 1:
What are the target dates for inclusion of all the residences of the unincorporated areas of the County?

Page 4-43, Alternative 25:
Private haulers would be encouraged to utilize the County of Los Angeles Sanitation Districts' yard waste alternative cover program. Please note that the use of yard waste, "green waste", as landfill cover is not permitted for widespread application by the Board. Some Los Angeles County Sanitation District operated landfills may use green waste as cover, under controlled situations, to meet "performance standards". An expansion of the Spadra landfill was recently approved by the Board. This expansion includes a provision for a green-waste-as-cover demonstration program.

While it may be the case that shredded or chipped, noncomposted
ygreen wastes are being incorporated as part of daily operations at some landfills, this practice does not make this material an approved daily cover. These facilities are assumed to be on what is commonly known as "performance standards". "Performance standards" refers to a facility management practice that differs from default cover regulatory requirements but is aimed at achieving similar environmental protection. The use of green wastes at these facilities does not constitute the use of an approved alternative cover material. Rather, the use of green wastes assists these facilities in meeting "performance standards".

For green waste to be deemed as suitable alternative cover, the landfill operator must submit a proposal to the Board and to the LEA for consideration. If the Board approves the request, the operator must establish a demonstration project, which would normally last at least one year. At the end of that demonstration project period, the Board and the LEA would evaluate the suitability of the demonstration cover material. If the Board and the LEA approve the material as "alternative cover", the operator would then file an Amended Report of Disposal Site Information and an application to revise the Board issued permit. After the permit is revised, the proposed material could be used as cover. By definition, however, the green waste material being applied at certain facilities is just that - a waste material and not an approved alternative cover material.

Page 4-50, Anticipated End Users of Recycled Materials:
For recycling programs to work effectively, markets for the collected materials need to be developed. If Los Angeles County plans to become Recycling Market Development Zone for its unincorporated area, it should state so in the Recycling Component of the SRRE to be eligible to apply for the California Integrated Waste Management Board sponsored program.

Response #s

The discussion here should also be expanded to discuss market development activities proposed as either one of the selected programs or as program compatible activities. [CCR Section 18735.4(a)]

42 The County of Los Angeles also needs to address contingencies for shortfalls in the recycled materials market scenario, since a recycling vendor or market could become glutted with diverted materials from numerous sources (jurisdictions, industry, etc.).

43 **Page 4-51, Facility Needs:**
This section states that there is no anticipated need for additional facilities to implement the recycling programs. Won't the curbside collection, multi-family collection, and MRF programs necessitate additional facilities for the storage of vehicles, containers, and collected materials? Please address this as required by CCR section 18733.4(e).

Page 4-57, Table 4-14:
This table includes the capital and annual costs for the recycling programs. This table does not appear to address all the selected programs nor does it include projected costs for the development or design of the selected programs. Please revise the table to include these items.

Page 4-57, Contingencies:
None of the steps identify actual contingencies. What programs or plans would the County propose to initiate if the diversions lagged or failed, or if the programs were ineffective? Please respond to the information as required by CCR Section 18740(d)(5).

COMPOSTING COMPONENT (Section 5)

Page 5-1, Objectives:
The stated objectives are to divert 1.0% (12,378 tons) of the total waste stream by 1995, and 3.0% (42,014 tons) by the year 2000. Please explain the relationship and the source of the percentages to the tonnages expressed. According to the quantities listed on Table 2-3, page 2-6, 1.0% of either the **"total"** unincorporated waste stream generated (1,094,051 tons) or of the yard waste generated (141,518 tons) does not equal 12,378 tons. The same holds true if using the quantities listed in Table 2-3 for total and yard wastes disposed - 1,042,692 tons and 133,409 tons respectively.

44 **Page 5-2, Short- and Medium-Term Market Development Objectives:**
It doesn't appear to staff that any of the selected alternatives support the objective requiring the "implementation of State mandated use of compost". Some of the Support Measures alternatives are to conduct market surveys, to develop procurement guidelines, and to divert yard waste from disposal but none address the idea of requiring local use of compost by city, county, state or federal facilities. How would the County propose to increase the markets for compost without some mandatory ordinance or plan?

Why does the County propose to initiate market development by mandatory procurement and use when the objectives are to only compost 1.0% and 3.0% of the "total" waste stream? Do the market development objectives also include not only compost but "mulch" or mulching activities?

Response #s

45 **Page 5-4, Description of Alternatives:**
Although the descriptions of the alternatives presented here are good, please expand them to include all the items required by CCR section 18733.3. Specifically, the discussion does not include identification of the hazards associated with the alternatives, the adaptability of the alternative to change, specifics about institutional barriers, and the costs associated with each alternative.

Page 5-28, Table 5-6:
Why does the County only consider development of the fines and punitive actions for illegal disposal and non-compliance during medium-term and not during the the short-term period? The proposed schedule calls for the ability to implement fines beginning in mid-1996, and the development and implementation of a "punitive rate for noncompliance" in mid-1998.

Page 5-29, Table 5-7:
This table includes the capital and annual costs for the composting programs. This table does not appear to include projected costs for the development or design of the selected programs. Please revise the table to include these items.

Page 5-30, Monitoring Methods:
Does the County propose to require monitoring reports or get any records of use from the State agencies or the County agencies mandated to use compost, as per the objectives?

SPECIAL WASTE COMPONENT (Section 6)

Page 6-3, Table 6-1:
Please revise this table to include the applicable data for 1990, since the tonnages presented as disposed in the various discussions represent 1990 data.

Page 6-8, White Goods:
Section 6.2.3 states that 781 tons of white goods were disposed in Class III landfills in the County in 1990. This section, and Table 6-1, indicates that 99,000 tons of white goods were disposed in 1989. Because section 6.3.3 states that there are no identified special waste diversion programs for white goods within the County, it would seem logical that the quantity of white goods disposed would remain fairly constant rather than take a **99.2%** reduction. In the revised SRRE, please either explain this drastic change or adjust the text and tables accordingly.

Page 6-19, List of Anticipated End-Users: Used Tires:
The Alternative discussion in section 6.4.1.2 would indicate that a use is to "allow" the use of asphalt-rubber for roadway construction and repair. The County could take a more positive stance by requiring the use of some percentage of rubber-asphalt for roadway, parking lot, playground, etc. construction and repair.

Page 6-19, List of Anticipated End-Users: Inert Waste:
The proposed end use of the diverted inert materials (rock, concrete, brick, sand, soil, asphalt, sheetrock) is "construction activities". Not all of the identified materials are easily recycled into other construction projects, sheetrock or bricks for example.

Page 6-23, Table 6-4:
This table includes the capital and annual costs for the Special Waste programs. This table does not show projected costs for the development or design of the selected programs. Please revise the table to include these items.

Page 6-25, Contingency Measures:
None of the steps identify actual contingencies. What programs or plans would the County propose to initiate if the diversions lagged or failed, or if the programs were ineffective? Please respond to the information as required by CCR Section 18740(d)(5).

EDUCATION and PUBLIC INFORMATION COMPONENT (Section 7)

We would like to commend the County for providing such a detailed and informative discussion on its existing activities and for those activities to be developed.

Page 7-2, Short-Term Objectives:
Were the "detailed plans that are coordinated and consistent with other jurisdictions in the region" ever developed? The first short-term objective states that those plans would be developed by 1992, but Table 7-7, page 7-25, indicates that those programs wouldn't be developed until 12/92.

Pages 7-4 and 7-5, Existing Education and Public Information Activities;
Pages 7-5 through 7-9, Selection of Program Alternatives; and,
Pages 7-10 and 7-11, Implementation Methods/Techniques:
Do any of the existing activities, the preferred programs, or the implementation methods utilize bi- or multi-lingual programs or methodologies? This may be an important aspect of the education programs considering the diverse ethnic backgrounds of the County's residents.

Page 7-26, Table 7-8:
The timing indicated for tasks in the medium-term implementation schedule seem unduly long. Development terms are two - three years, and "refinement" is scheduled to take four years. Evaluation of the programs activities should be done throughout the useful life of the program, but actual evaluation and refinement of the programs themselves could be done annually, on the anniversary date of the SRRE for instance. The same annual review and revision would hold for ongoing development.

Page 7-12, Contingency Measures:
What actual contingency options would the County consider if public information and education efforts don't happen within the County's planned schedule, or at all? What strategies does the County have for increasing the program's targeted audiences and effectiveness? Please discuss these in the revised SRRE.

SOLID WASTE DISPOSAL FACILITY CAPACITY COMPONENT (Section 8)

Please identify all solid waste facilities within the County that are used for the disposal of solid waste generated within the unincorporated area of the County, as required by CCR Section 18722(i). This should include those facilities landlocked by incorporated cities, and in the unincorporated areas of the islands just offshore but still part of the unincorporated area.

Table 2-3 indicates that there are 1.094 million tons of waste generated per year in the unincorporated area of Los Angeles County, and 1.043 million tons disposed. Using those numbers, and the available capacity indicated in Table 8-2, staff calculates that the County unincorporated area landfills have 30+ years of capacity remaining. Table 8-2 shows that the County has only 4.125 years of permitted capacity available, limited by the Conditional Use Permits. The discussion under section 8.3, item "I", would indicate that most of the waste disposed within the county unincorporated area is imported (5+ million tons), from incorporated cities within the county and from sources outside Los Angeles County.

To better plan for future adequate disposal capacity, staff suggests that Los Angeles County develop import/export agreements with those participating jurisdictions **as soon as possible**. Tables 8-3a and 8-3b include all quantities for wastes disposed in the unincorporated area of the County, and indicate that the County only has just over four years remaining permitted disposal capacity. But, by not having agreements with those other jurisdictions, and counties, the data presented in Table 8-4 has been skewed because the County cannot count imported waste without an agreement, showing that, as of 1990, the county actually has in excess of 15 years capacity. In fact, Table 8-4 does show that additional capacity **without** imported wastes would be needed between 2004 - 2006 anyway.

Page 8-10, General Strategy for Maintaining Adequate Disposal Capacity:
If the County is going to rely on and reference the **Action Plan**, the Action Plan should be summarized or included as an appendices to the SRRE. Of importance would be those sections dealing with the closure and the expansion of existing facilities, the siting of new facilities, and the strategies for long-term waste management planning.

Page 8-16, Table 8-7:
Please explain the dramatic increase in disposal capacity starting in 1994. Is the County assuming that all the landfills listed in Table 8-6 are permitted, sited, and receiving waste? The discussion in section 8.6.3, although probably accurate, doesn't lead to the conclusion that those landfill expansions would take place, or that new landfills will be permitted and operating, by 1994.

Page 8-17, Solid Waste Export Agreements:
The statements here, that the County has no plans to develop export agreements because there is adequate disposal capacity for the short- and medium-term planning periods, is not supported by the information presented in the text nor in the Tables. With the inclusion of the amounts of waste imported, staff calculates only 4.125 years of remaining permitted disposal capacity. Tables 8-5 and 8-6 show expansions of existing facilities and siting of new facilities proposed to help ease the burden, but Solid Waste Facility Permits for those new or expanded facilities have not been granted by the Board. In fact, the environmental reports for the proposed new facilities have not yet been completed nor have the other required permits been granted.

FUNDING COMPONENT (Section 9)

Please be aware that staff feels that this was the best Funding Component submitted for review to date. Each of the requirements of the regulations was addressed in enough detail to give us a feeling of the County's funding capabilities.

The Funding Component should include a recap of all the program costs and revenue sources that were discussed in the individual component program sections. Even though the County has initiated proposed amendments to AB 939 which would reduce or eliminate non-implementation functions for the County, such as planning and reporting, the SRRE must comply with statute and regulation in effect at this time. Until the time that amendments to AB 939 are passed and become law, the County's SRRE must address all aspects of current code, one of them being the Funding Component, which is to include not only implementation costs but also planning and development costs. Please modify Table 9-1 to indicate a balance of costs and revenues, (footnote 1.).

PLAN INTEGRATION COMPONENT (Section 10)

Please explain how the County has integrated the components to maximize use of all feasible source reduction and recycling options. Include an explanation on how components jointly achieve diversion mandates and how priorities between components was determined. [CCR Section 18748(a)(2)]

Please revise the tables to show the target dates for achieving the 25% and 50% goals. The tables could also indicate interim goals and the target completion dates for each of the program activities and the major program tasks.

Will the Department of Public Works - Waste Management Division be the overall coordinator for monitoring the implementation schedules for all the programs? Will it also be the agency responsible for determining priorities between the component programs?

APPENDIX H-2

Response to CIWMB Comments by Component

RESPONSE TO CIWMB COMMENTS

SOURCE REDUCTION COMPONENT

- Description of existing programs are indicated in Section 3.3, Existing Conditions as available. Complete private sector source reduction activities are not currently available.

- Goals and objectives for the short-term planning period has been noted and included in component. Dates for achieving goals and objectives are indicated in Tables 3-1 and 3-2, 1995 and 2000 respectively.

- Program description is discussed in Section 3.4, Source Reduction Program.

- Existing programs are indicated in Section 3.3, Existing Conditions.

- Source reduction activities are indicated in Table 3-7, stating total diversions for 3.7% and 5.2% for short term and long term, respectively. Percentages for each program alternative are identified, adding to the total percentages indicated.

- Comment on identification of the County Department has been noted and included to read "Los Angeles County Department of Public Works."

- Table 3-10 has been revised to include all selected programs and projected costs for the design and development of programs.

- Contingency measures have been identified in Section 3.7.3.3.

TB:mm
alwp2/srdction

Source Reduction and Recycling Element
Response to CIWMB Comments

RECYCLING COMPONENT

Response to Comment, Page 4-2, Objectives:

The sections that describe the Element's objectives (Sections 4.2.1 - 4.2.2) have been modified to include the implementation completion dates.

Response to Comment, Page 4-5, Existing Programs:

The Component identifies the recycling programs established in the unincorporated areas. The text of Section 4.3.1 has been modified to clearly address this issue. Where possible, the text has been revised to reflect the relationship between the sectors and the existing recycling programs. Materials targeted by existing programs is discussed in Section 4.3.2 and is referenced in Table 4-2. However, Section 4.3.1 has been revised to provide lists of material types diverted by individual programs.

Response to Comment, Regarding CCR Sections 18733.2 and 18735.2:

This information was already provided as a reference at the end of Section 4.3.1. However, this section has been revised so that this reference is clearly identifiable to the reader.

Response to Comment, Page 4-37, Existing Programs:

There is no Section 4.4.1.1 in the draft Component. Table 4-13 includes the schedule for expanding or modifying existing programs for the unincorporated areas.

Response to Comment, Page 4-37, Curbside Collection:

Section 4.5.2.1 has been revised to incorporate the requested information.

Response to Comment, Page 4-37, Buy-Back Centers:

Section 4.5.2.3 has been revised to incorporate the requested information and Table 4-2 has been added which identifies buyback centers in the unincorporated area in 1990.

Response to Comment, Page 4-40, Selected Programs:

The County's curbside collection program covers the unincorporated areas of the County and does not include incorporated cities. Some programs that are being implemented by the County are not identified as part of the selected diversion program since diversion quantities may not be claimed for these activities.

Response to Comment, Page 4-41, Alternative 1:

Curbside collection programs for the unincorporated areas will be fully implemented by June 1995.

Response to Comment, Page 4-43, Alternative 25:

The Local Task Force has approved the use of green waste as alternative daily landfill cover as an appropriate waste diversion program.

Response to Comment, Page 4-50, Anticipated End Users:

In Section 4.2.1, the County does state that it plans to establish a Recycling Market Development Zone in the unincorporated area.

Response to Comment, Regarding CCR Section 18735.4(a):

Many supportive policies which are recycling market development activities are listed in Tables 4-4, 4-6, 4-7, and are analyzed under Supportive Policies (Section 4.4.2.3), selected in Section 4.5.4 and scheduled for implementation in Tables 4-13 and 4-14.

Response to Comment, Regarding Market Development Contingencies:

To the extent that markets for recycled materials/products can be influenced by local government actions, the County will attempt to engage in some of the contingency measures identified in Section 4.7.3.5 if existing market development activities are inadequate to support recycling programs.

Response to Comment, Page 4-51, Facility Needs:

The implementation of recycling programs will create a need for new or expanded facilities. However, the County does not anticipate a shortfall in facilities needed to collect, store, transfer, recover, and/or process recyclable materials. Section 4.5.8 discusses what actions the County will take in the event that the private sector fails to provide adequate facilities for these recycling and materials handling activities.

Response to Comment, Page 4-57, Table 4-14:

Table 4-15 has been revised to include all principle programs selected for implementation as well as supportive policies which will be implemented to supplement principle diversion alternatives. To the extent that costs are known, they are identified in Table 4-15.

Response to Comment, Page 4-57, Contingencies:

The CIWMB comments identify CCR Section 18740(d)(5) as the section that regulates the description of contingency measures. However, this section regulates the Public Education Component, not contingencies for the Recycling Component. Section 4.7.3.4 of the Recycling Component has been revised to include more descriptive information than is required by CCR Section 18733.69(c)(4)(A-B) which is the CCR section that regulates the description of contingency plans.

JT:jt
jt1/stcom

Source Reduction and Recycling Element
Response to CIWMB Comments

COMPOSTING COMPONENT

- The stated objectives of diverting 1.0% (12,378 tons, revised to 12,537 tons) of the total waste stream by 1995, and 3.0% (42,014 tons, revised to 42,552 tons) by 2000, are correct as stated. Table 2-3 presents "existing" statistics for the base year 1990. The respective goals for 1995 and 2000 are derived from the waste generation projections, Table 2-21, for those years.

- The objective of requiring the implementation of state mandated use of compost has been removed as an objective. The County does not have the authority to require state agencies to report on their use of compost. The County will study the feasibility of implementing a mandatory ordinance or plan to increase the markets for compost as a possible contingency measure.

- The County proposes to initiate market development by mandatory procurement and use to reach its goals of composting "only" 1% of the total waste stream by 1995, and 3% by 2000. The 1% and 3% diversion goals are significant as they involve a substantial volume for the unincorporated County. The market development objectives do not include mulching activities at this time. The County will consider mulching as a potential contingency measure.

- Section 5.4.3 of the Composting Component describes each alternative in regards to the concerns mentioned. Specifically, the identification of hazards is analyzed in section 5.4.4.10 (page 5-17), adaptability to change in section 5.4.4.11 (pages 5-17, 18), institutional barriers in section 5.4.4.3 (pages 5-13, 14), and costs in section 5.4.4.2 (page 5-13). Staff has concluded that the previous description of these issues was sufficient.

- The County does not foresee illegal disposal and non-compliance being problems in the short-term. The exact time frame of developing these measures will depend on the level of non-compliance observed in response to programs and policies. Alternatives that may be pursued to make up for deviant activity include daily cover at area landfills and fire suppression mulch materials on countywide fire breaks for local fire departments.

- The projected costs of development and design of the selected programs are included in Table 5-7 under the entry "Program Development/Operations." Most of this amount is for program development activities in the first year; the remainder is allocated for operations in successive years.

- The County will request monitoring reports from other County agencies that use our compost. This will enable the County to monitor diversion and receive comments on the quality of compost materials that are being produced through County-sponsored operations.

BKwp/CHAPTER5.ADD

Source Reduction and Recycling Element
Response to CIWMB Comments
SPECIAL WASTE COMPONENT

1. Comment 6-01:

Page 6-3, Section 6.3.1.1, Table 6-1.

Please revise this table to include the applicable data for 1990, since the tonnages presented as disposed in the various discussions represent 1990 data.

Response 6-01:

This comment is acknowledged. The data shown in Table 6-1 is for 1990 instead of 1989. The 1989 reported in table 6-1 is a typographic error.

2. Comment 6-02:

Page 6-8, Section 6.3.1.6, White Goods.

Section 6.2.3 states that 781 tons of white goods were disposed in Class III landfills in the County in 1990. This section, and Table 6-1, indicates that 99,000 tons of white goods were disposed in 1989. Because Section 6.3.3 states that there are no identified special waste diversion programs for white goods within the County, it would seem logical that the quantity of white goods disposed would remain fairly constant rather than take a 99.2% reduction. In the revised SRRE, please either explain this drastic change or adjust the text and tables accordingly.

Response 6-02:

The 99,000 tons of white goods mentioned above is the amount disposed off in 1990 instead of 1989 as indicted in Table 6-1 (see response to comment 6-01). Also, the 99,000 tons includes both the incorporated and unincorporated areas of the County of Los Angeles.

The 781 tons of white goods mentioned in Section 6.2.3 is incorrect. The correct amount of the white goods referred to in Section 6.2.3 is 724 tons. The 724 tons represent the disposed portion of the white goods generated only in the unincorporated areas of Los Angeles County in 1990.

Therefore, the 781 tons reported does not represent a drop from 99,000 tons in the amount of white goods disposed in Los Angeles County. Section 6.2.3 is revised to clarify the white goods disposal situation in the County.

3. Comment 6-03:

Page 6-19, Section 6.5.3.2, List of Anticipated End-Users. Used Tires:

The Alternative discussion in Section 6.4.1.2 would indicate that a use is to "allow" the use of asphalt-rubber for roadway construction and repair. The County could take a more positive stance by requiring the use of some percentage of rubber-asphalt for roadway, parking lot, playground, etc., construction and repair.

Response 6-03:

Comment is acknowledged. Section 6.4.1.2 to be revised to include the use of rubber-asphalt for roadway, parking lot, playground, etc., construction and repair. However, the percentage of rubber-asphalt to be mandated for use in roadway, parking lot, e.t.c., construction is to be determined in the future.

County-maintained roads will be paved with rubberized asphalt; however, federally funded highway projects will not be paved with rubberized asphalt since such projects require that the asphalt consist of certain constituents. The County will conduct a demonstration for paving with rubberized asphalt at each of the five Supervisory Districts each year to promote the use of rubberized asphalt.

4. Comment 6-04:

Page 6-19, Section 6.5.3.1, List of Anticipated End-Users. Inert Waste:

The proposed end use of the diverted inert materials (rock, concrete, brick, sand, soil, asphalt, sheetrock) is "construction activities". Not all of the identified materials are easily recycled into other construction projects, sheetrock or bricks for example.

Response 6-04:

In Section 6.5.3.1, sheetrock or bricks were not listed as types of inert waste recycled for reuse in the industry. The recyclable inert waste that can possibly be used in construction activities are listed in Section 6.5.3.1. The above response also applies to Section 6.4.1.2.

Although our goal is to reduce or eliminate the disposal of inert waste in Class III landfills within the short-term planning period, materials that cannot be readily recycled into other construction projects, sheetrock or bricks, for example, can be diverted by disposing such waste in unclassified (Inert) landfills. There is sufficient disposal capacity for inert waste materials in Los Angeles County; therefore, the disposal of such waste exclusively into inert waste landfills can be encouraged either by regulations or by policies adopted by individual landfill owners/operators.

5. Comment 6-05:

Page 6-23, Section 6.6.3, Table 6-4.

This table includes the capital and annual costs for the Special Waste programs. This table does not show projected costs for the development or design of the selected programs. Please revise the table to include these items.

Response 6-05:

The capital and annual implementation cost shown in Table 6-4 includes the projected cost for development or design of the selected programs.

6. Comment 6-06:

Page 6-25, Contingency Measures.

None of the steps identify actual contingencies. What programs or plans would the County propose to initiate if the diversions lagged or failed, or if the programs were ineffective? Please respond to the information as required by CCR Section 18740(d)(5).

Response 6-06:

1) There is no CCR Section 18740(d)(5).

2) The Contingency measure program identified in Section 6.7.5 of the SRRE is consistent with the requirements of CCR Section 18733.6(c)(4) which identifies the requirements for the monitoring and evaluation of each Component (including contingency measures).

CCR Section 18733.6(c)(4) states that contingencies may include increasing the frequency of program monitoring and review or modification of the objectives or diversion alternatives adopted in each Component program. Section 6.7.5 of the Special Waste Component identifies such contingency measures as required by CCR Section 18733.6(c)(4).

Furthermore, three alternative programs that will be considered as contingencies have been added. They include encouraging businesses to pave parking lots with rubberized asphalt, working with the Federal Highway Administration to develop standards for utilizing rubberized asphalt on pavement programs for federal highways that are within local jurisdictions, and assisting charities in informing the public of the existence of the White Goods Program.

CA:mm
cawp1/SPECIAL

Source Reduction and Recycling Element
Response to CIWMB Comments

EDUCATION AND PUBLIC INFORMATION COMPONENT

Page 7-2, Short-Term Objectives:

Yes, the following are a list of projects that the Los Angeles County Department of Public Works have implemented and will continue to implement countywide.

A. The staff of Department of Public Works, Waste Management Division makes weekly presentations to elementary schools throughout Los Angeles County. Each presentation is 45 minutes in length and consists of three parts:

1) Interaction with the schoolchildren regarding recycling.
2) Presentation of our new video "Let's All Recycle," featuring the costumed character, Woody Woodpecker, the County's Official Recycling Mascot.
3) A group participation game.

B. The video, "Let's All Recycle," is currently being distributed countywide to each City's Recycling coordinator.

The short-term implementation schedule on page 7-25: Table 7-7 identifies the completion date as 12/92.

Page 7-4, 7-5, Existing Education and Public Information Activities
7-5 through 7-9, Selection of Program Alternatives
7-10 and 7-11, Implementation Methods/Techniques

Yes, the Los Angeles County Department of Public Works (DPW), Education and Public Information Component does utilize bilingual methodologies in English and Spanish. In addition, according to the Los Angeles County Office of Education Facts about the Schools of Los Angeles County 1990-91, the 1980 Census Bureau concluded that approximately 93% of the Los Angeles County population speaks English and/or Spanish. Therefore, it is a cost benefit to focus on the two most spoken languages in the County of Los Angeles.

The following education and public information programs are available in English and Spanish:

-An eight-minute English and Spanish video, "Let's All Recycle", teaching children about the new three R's (Reduce, Reuse, Recycle). The video is targeted to children kindergarten through sixth grades. In addition to the video programs, English/Spanish activity booklets reinforce the importance of recycling. The video was reviewed and endorsed by the Los Angeles County Office of Education and the Los Angeles Unified School District.

-Lennox buyback center, a recycling program coordinated by Los Angeles County Department of Public Works and Department of Parks & Recreation, and Browning-Ferris Industries. Information on flyers are printed in half English and half Spanish to accommodate the Hispanic community.

-When DPW sponsors a household hazardous waste round-up in a populated Hispanic community, Public Works advertises in "La Opinion", a widely read Spanish newspaper.

-The Department of Public Works, Education and Public Information staff has bilingual capabilities. This enable the department to give bilingual presentations and to answer the public's questions and concerns. In addition, DPW has established a 1-800-552-5218 hotline number to address public questions regarding recycling and household hazardous waste disposal.

-Ralphs Calendar Contest, a bilingual environmental calendar contest sponsor by DPW, MCA/Universal Merchandising, INC., Ralphs Grocery Company, KIIS-FM/AM, Browning-Ferris Industries, and the Los Angeles County Department of Parks and Recreation.

Page 7-26,

-The short and medium term implementation schedule has been changed to meet the SRRE's deadline (See Table 7-8).

-Thank you for your suggestion. As we implement our SRRE programs activities, we will be evaluating and refining annually, as necessary, and modifying the programs to ensure effectiveness.

Page 7-12, Contingency Measures:

If the County public information and education efforts encounter a shortfall in it's implementation process, then the County's planned schedule and/or objectives will be modified.

Source Reduction and Recycling Element
Response to CIWMB Comments
SOLID WASTE DISPOSAL FACILITY CAPACITY COMPONENT

Comment 8-01:

Please identify all solid waste facilities within the County that are used for the disposal of solid waste generated within the unincorporated area of the County, as required by CCR Section 18722(i). This should include those facilities landlocked by incorporated cities, and in the unincorporated areas of the islands just offshore but still part of the unincorporated area.

Response 8-01

This comment is acknowledged. Tables 8-1 and 8-2 have been revised to incorporate those minor landfills. Section 8.2, Existing Permitted Solid Waste Facilities, identify and describe all solid waste facilities within the County that are used for the disposal of solid waste generated within the unincorporated areas of Los Angeles County.

BKK and Bradley West Landfills, although not within the County unincorporated areas, have wastesheds which covers certain portions of the unincorporated County areas. A wasteshed is a geographical area from which waste can logically be delivered to a given disposal facility. Waste concept allocation is not implied.

Comment 8-02

Table 2-3 indicates that there are 1.094 million tons of waste generated per year in the unincorporated area of Los Angeles County, and 1.043 million tons disposed. Using those numbers, and the available capacity indicated in Table 8-2 staff calculates that the County unincorporated area landfills have 30+ years of capacity remaining. Table 8-2 shows that the County has only 4.125 years of permitted capacity available, limited by the Conditional Use Permits. The discussion under Section 8.3, item "I" would indicate that most of the waste disposed within the County unincorporated area is imported (5+million tons), from incorporated cities within the county and from sources outside Los Angeles County.

To better plan for future adequate disposal capacity, staff suggests that Los Angeles County develop import/export agreements with those participating jurisdictions **as soon as possible.** Tables 8-3a and 8-3b include all quantities for wastes disposed in the unincorporated area of the County, and indicate that the County only has just over four years remaining permitted disposal capacity. But, by not having agreements with those other jurisdictions, and counties, the data presented in Table 8-4 has been skewed because the County cannot count imported waste without an agreement, showing that, as of 1990, the county actually has in

excess of 15 years capacity. In fact, Table 8-4 does show that additional capacity without imported wastes would be needed between 2004-2006 anyway.

Response 8-02

This comment is acknowledged. As indicated in Section 8.7, there are no plans to develop export agreements. There is adequate disposal capacity and resources within the County unincorporated areas to meet the needs of waste generated in these areas throughout the short- and medium-term planning periods. These resources and general strategy are discussed in Section 8.6.

Comment 8-03

Page 8-10, General Strategy for Maintaining Adequate Disposal Capacity:

If the County is going to rely on and reference the **Action Plan**, the Action Plan should be summarized or included as an appendices to the SRRE. Of importance would be those sections dealing with the closure and the expansion of existing facilities, the siting of new facilities, and the strategies for long term waste management planning.

Response 8-03

This comment is acknowledged. The Action Plan is hereby incorporated as Appendix F. A summary of the Action Plan is discussed in Section 8.6.1.

Comment 8-04

Page 8-16, Table 8-7:

Please explain the dramatic increase in disposal capacity starting in 1994. Is the County assuming that all the landfills listed in Table 8-6 are permitted, sited and receiving waste? The discussion in Section 8.6.3, although probably accurate, doesn't lead to the conclusion that those landfill expansions would take place, or that new landfills will be permitted and operating, by 1994.

Response 8-04

Due to the length of time it takes to develop new landfills and the uncertainty that exists as to what potentially new landfills will ultimately be approved, Table 8-6 is currently not considered in abating the County's disposal capacity shortfall. Only additional capacity shown in Table 8-5 is considered to abate the disposal capacity shortfall indicated in Table 8-3 and abated in Table 8-7. Table 8.6 is for planning purposes only. Please refer to Section 8.6.3 for additional information.

Comment 8-05

Page 8-17, Solid Waste Export Agreements:

The statements here, that the County has no plans to develop export agreements because there is adequate disposal capacity for the short-and medium-term planning periods, is not supported by the information presented in the text nor in the Tables. With the inclusion of the amounts of waste imported, staff calculates only 4.125 years of remaining permitted disposal capacity. Tables 8-5 and 8-6 show expansions of existing facilities and siting of new facilities proposed to ease the burden, but Solid Waste Facility Permits for those new or expanded facilities have not been granted by the Board. In fact, the environmental reports for the proposed new facilities have not yet been completed nor have the other required permits been granted.

Response 8-05

Please refer to Response 8-02. Additionally, the Environmental Impact Report for the facilities shown in Table 8-5, except for Chiquita Canyon, has been or in the process of being approved/ certified by the Los Angeles County Regional Planning Commission. The vertical expansion of the Lancaster Landfill has obtained all required operating permits and is fully permitted. The expansion of Sunshine Canyon Landfill, without any further court challenges, is a fully permitted facility. Additionally, an Environmental Impact Report is being considered for the portion of Sunshine Canyon within the City of Los Angeles.

The draft Environmental Impact Report for Elsmere Canyon site indicated in Table 8-6 is currently being prepared. Please refer to Response 8-04 for additional information.

MA:mm
jkwp3/CHAP8

Source Reduction and Recycling Element
Response to CIWMB Comments

FUNDING COMPONENT

The comments regarding the Funding Component have been noted. Tables 9-2 through 9-8 have been revised to include a recap of those costs and revenues shown in the individual components. In addition, the text has been expanded to include a description of those costs and/or revenues mentioned in the other components. Table 9-1 has been modified to indicate a balance of costs and revenues.

AW:aw
CACOMM

Source Reduction and Recycling Element
Response to CIWMB Comments
PLAN INTEGRATION COMPONENT

The comments regarding the Plan Integration Component have been noted. Revisions have been made to the component. The Department of Public Works, Waste Management Division will be the overall coordinator for monitoring the implementation of the integrated plan schedules. Additionally, it will be responsible for determining priorities between the component programs.

IO:vc
lzwp3/SRRE

APPENDIX H-3

Response to CIWMB Comments by Consultants

EMCON Southwest

July 6, 1992
Project F33-01.01

Mr. David Smith
Supervising Civil Engineer II
Waste Management Division
Los Angeles County
Department of Public Works
900 South Fremont Avenue, 7th Floor
Alhambra, California 91803-1331

Subject: Responses to CIWMB Comments on Final Source Reduction and Recycling Element

Dear David:

Attached for your review and use are our responses to selected comments made by the CIWMB on the County's final SRRE for the unincorporated areas. As specified by you in a letter to EMCON dated May 12, 1992, only specific comments from the Board's April 7, 1992 letter have been addressed. The comments that we addressed have been sequencially numbered for ease of reference. If you have any questions regarding our responses, please give Mike Dean or me a call at (818) 841-1160.

Very truly yours,

EMCON Associates

Katherine R. Winsor
Executive Manager

KRW:keb

Attachments: CIWMB Letter dated April 7, 1992
Response to Comments for Unincorporated Area SRRE

Mail to: P.O. Box 7894, Burbank, California 91510-7894
3300 N. San Fernando Blvd., Burbank, California 91504 (818) 841-1160

LOS ANGELES COUNTY-UNINCORPORATED AREA SOURCE REDUCTION AND RECYCLING ELEMENT CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD (CIWMB) COMMENTS AND RESPONSES

LOS ANGELES COUNTY - UNINCORPORATED AREA SRRE
CIWMB
COMMENTS AND RESPONSES

Note: ***The following comments (in italics) and corresponding responses address only those items that EMCON was specifically requested to respond to by the Los Angeles County Solid Waste Management Committee\Integrated Waste Management Task Force. The paragraphs are numbered to correspond to the numbers in the left margin of the comment document.***

Solid Waste Generation Study and Analysis

1. *Please identify all permitted transfer stations, permitted solid waste transformation facilities, and permitted solid waste disposal sites used by the County of Los Angeles for the unincorporated area, as required by CCR Section 18722(i). Solid wastes placed in illegal dumps or unpermitted landfills cannot be counted as a part of the total solid waste generated (or disposed) in the SWGS (CCR Section 18722[g][1]).*

   This information is provided in Section 2.2.1.2 of the SRRE provided to the County for the East San Gabriel Valley unincorporated area, Section 2.2.1.1 of the SRRE for the South Bay unincorporated area, and in Section 2.2.1 for the Southeast unincorporated area.

2. *PRC Section 41780 excludes inert solids, agricultural wastes, scrap metals, white goods and sludge from the definition of solid waste, except those "...which were disposed of at a permitted disposal facility as of January 1, 1990, which are diverted and which are recycled, composed, or reused." Therefore, please account (e.g. landfill records) for the presence of the above named items in the landfill(s), so that diversion credits could be applied to them.*

   Agricultural wastes and sewage sludge were not accounted for in the SWGS. Scrap metals, white goods, and inert solids quantified for diversion by the County unincorporated areas meet the three criteria in the State's comments regarding diversion credit. Based

on actual field samples and statistically valid waste composition studies from comparable jurisdictions, it was determined that the waste types were normally disposed of in a permitted solid waste landfill as of January 1, 1990, and were being diverted through programs in place as of January 1, 1990.

3. *In your SWGS, please include an outline of a system for gathering data on the quantities and composition of solid waste generated, diverted and disposed, which states when, and from whom reports will be collected, as required in CCR Section 18722(o).*

The final SRRE may be modified to address this comment by adding the following information to the Solid Waste Generation Study (specifically Section 2.4.5):

As required by CCR Section 18722(o), the County has developed a system for gathering data on quantities and composition of solid waste generated, diverted, and disposed, including when and from whom reports will be collected. This system will be implemented in the next year and will be utilized to update the Solid Waste Generation Study in subsequent years. The County plans to discuss reporting options with local waste haulers, solid waste facility operators, recycling facilities, recycling programs, and source reduction programs to determine what refinements to the system will work best in the future. A brief outline of the system to collect diversion data to be initially adopted is listed below.

- identify all new and existing source reduction, recycling, and composting programs in the County, including private businesses, County offices, and local and regional diversion programs
- survey all programs diverting waste from the County annually for diversion data by mail and by telephone, including types of materials diverted, quantities diverted, and marketing information

A brief outline of the system to collect composition data to be initially adopted is listed below.

- conduct field sampling of residential, commercial, industrial, and other waste streams as needed to comply with state regulations, and to account for any differences that may have

occurred in these waste streams due to social, demographic, or economic changes in the County

- waste haulers servicing accounts in the County will be required to participate in these composition studies and will be given one month's notice of the County's intent to conduct a composition study.

4. *The discussion on seasonal variation does not provide the information required by the regulations. Quantifying seasonal variations in the solid waste stream is accomplished by identifying distinct cyclical patterns of local climate, demography, trade or commerce as per CCR Sections 18720(65) and 18722(i)(2); seasonal variation is not only in reference to specific calendar seasons (i.e., fall, winter, etc.). After identifying the seasonal variations, the jurisdiction selects the 6-month sampling period and states how many times each identified season was sampled (e.g., two seasons identified in the 6-month period with one week of sampling in each season). Please state the 6-month sampling period selected, the number of seasons identified in that period, and the number of times each season was sampled.*

   As described in Section 2.2.2, no seasonal variations of the disposal waste stream could be quantified. Disposal data from area landfills was reviewed in order to make this determination. We are unaware of any existing data from a similar jurisdiction describing seasonal variations and quantities or composition of solid waste. If a seasonal variation in trade or commerce takes place in the future as a result of holiday purchasing, for example, it is expected that existing programs can handle the increase in materials generated.

5. *For solid waste disposed in permitted landfills, please report the quantity in both weight and in-place volume (in the landfill) (CCR Section 18722[f][4]).*

   Weight and in-place volume of disposed wastes are reported in Table 2-10 of the South Bay SRRE, Table 2-9 of the East San Gabriel Valley SRRE, and Table 2-2 of the Southeast Area SRRE.

6. *Page 2-7, 2.3.1.1 Private Services:*

   Surveys were sent to all waste haulers to obtain information on disposed waste amounts. Please provide a discussion on the number of usable responses received from the haulers to support

the position that the data are representative of the jurisdiction's waste stream (CCR Section 18722[h]).

In the South Bay unincorporated area, 11 of the 50 haulers responded to the survey. In the East San Gabriel Valley unincorporated area, 14 of the 33 haulers responded. Despite repeated attempts to contact haulers by phone and by mail, many haulers failed to respond to the survey.

In the Southeast area, sixty-four solid waste haulers were identified by the County as having active accounts. Written surveys were sent to each hauler which were followed up by several phone calls to collect and confirm data. Our of 64 haulers sent surveys, 50 returned completed surveys, or approximately 94% of the haulers operating in the study area. The four haulers not responding to the survey had very few accounts and hauled relatively small tonnages. As a result, the survey data was deemed to be representative.

7. *Page 2-9, 2.3.1.3 Marine Waste Disposal:*

Marine wastes are collected from the beaches and harbors of Manhattan Beach and Hermosa Beach. Please identify the jurisdiction(s) in which these beaches and harbors are located. If the beaches and harbors are within the jurisdictions of Manhattan Beach and Hermosa Beach, then the waste generated in these locations should be included with the waste amounts disposed by these jurisdictions, regardless of the jurisdiction that collects the waste. The unincorporated County need only identify and quantify the marine waste that is generated within its jurisdictional boundaries (CCR Section 18722[i][3]).

The County contracts for collection of wastes at the beach. The beaches are multijurisdictional between the State, County, and localities. Marine wastes were included in the South Bay County SRRE SWGS prepared by EMCON.

8 -14. *Page 2-11, 2.3.3 Solid Waste Generation*

This section contains a discussion of the methodology used to ascertain the waste composition. However, this discussion did not provide Board staff with a sufficient understanding of how waste composition was determined. Please clarify the following points:

While we were requested to respond to paragraphs 5, 6, and 7 on page 2, and all of page 3 (comment numbers 8-14), these paragraphs relate to data and methodologies used by the County staff to aggregate various information from the different SRREs. EMCON is not prepared to respond to these comments, therefore, responses are not provided.

15. *Page 2-11, 2.3.4 Field Sampling Procedures*

The text states that the sampling procedures used for each of the Working Groups are described in Appendix C. However, no sampling methodologies for Working Groups 1, 2, and 6 are contained in Appendix C. Please provide a discussion on the sampling methodologies for these Working Groups, or include an explanation of how the waste composition for these Working Groups was determined. In addition, if in fact, field samples were collected for calculating the disposed waste composition of the unincorporated County, staff cannot determine the total number of samples collected.

SRRE's for Working Groups 1, 2, and 6 were not prepared by EMCON Associates.

16. *Appendix C-3 contains field sorting data but there is no explanation of how this data was generated or how it relates to the data contained in Appendix C-5. Please clarify this matter.*

The data presented in Appendix C-3 were obtained from the East San Gabriel Valley area field sampling activities; Appendix C-5 contains information from this group as well as the South Bay area and Southeast area. It is unclear as to the County's purpose in presenting only the field data from the East San Gabriel Valley area.

17. *Appendix C-5 contains the methodologies used by Working Groups 3, 4, and 5. Working Groups 3 and 4 used the Klee and Carruth method to determine the number of samples to collect from each waste generation sector. A comprehensive review of the sampling methodology by Board staff revealed several areas that require clarification or additional data. Please address the following topics:*

Responses presented below in comment numbers 18-31.

18. *Working Group 3 - South Bay Area*

The calculations for determining the sample number for the residential, commercial, and industrial sectors were based on the assumption that the single largest waste type was paper or yard waste and the percent composition would be in the range of 35 percent. The Klee and Carruth method requires a jurisdiction to estimate its percent waste composition by use of existing published data about the jurisdiction, and/or published data on percent waste composition from other jurisdictions. The source of this value shall be stated in the waste generation study (CCR Article 6.1 Appendix 1[ii]). Please describe the methodology followed in applying this method and show the calculations for determining the sample numbers.

The determination that paper or yard waste would constitute approximately 35% of the various sectors' waste streams was based on the results of solid waste generation studies conducted by EMCON for other cities in Los Angeles County. Specifically, the cities of Burbank and Vernon were used as relative jurisdictions. For the City of Burbank, paper constituted 37.1% of the overall disposal waste stream and yard waste constituted another 10.9%. In Vernon, paper was 32.8%, and yard waste another 37.8%. The methodology used to select the number of field samples was presented in Section 2.2.3 of the South Bay area preliminary draft SRRE (Appendix C-1 of final SRRE).

19. *The sample size formula used for the Klee and Carruth method is contained in Appendix C-1. Board staff questions the validity of the precision level (Δ-delta) used in this formula. The precision level of 0.04 was selected for the commercial and industrial sectors. Why was a precision level of 0.02 used in your formula? Is the Δ value used for calculating σ, based on precision level desired or the confidence interval desired? Please show how the formula in Appendix B-2 is equivalent to the formula in CCR Article 6.1, Appendix 1, 2.a.(ii).*

The formula presented in Appendix C-1 of the final document represents the methodology that was used to determine the sample numbers. However, the formula should have been modified to reflect the precision level selected (0.04 for residential and 0.05 for commercial and industrial waste) rather than showing the

0.02 precision level. This formula, however, is equivalent to the formula in CCR, Article 6.1, Appendix 1, 2.a.(ii) as shown below.

Klee and Carruth:

$$\sigma^2 = [2 \arcsin \sqrt{x} - 2 \arcsin \sqrt{x \pm \Delta}]^2$$

Substitutions:

$$n = \frac{(Z_{(1-\alpha/2)})^2 S^2}{[2 \arcsin \sqrt{p} - \arcsin \sqrt{(p + 0.02)}]}$$

Where:

$Z = Z_{(1-\alpha/2)}$ = Standard normal variable that corresponds to the desired confidence level.

$x = p$

Δ = Selected standard deviation

20. *Sample sizes were calculated using a standard deviation (SD) of 0.10 for residential waste and 0.20 for commercial and industrial wastes. The SD (z and s values), remain constant (1.645 and 0.1632, respectively) in the Klee and Carruth formula and are based on a sample weight of 200 pounds or more. Using SD values other than the constants intended to be applied with the formula and the use of sample weights significantly less than 200 pounds, does not provide data that can be considered representative based on the Klee and Carruth method. As a result of altering the SD values in the formula and applying it to low sample weights, Board staff does not consider (that) the method used can accurately be termed Klee and Carruth, and request that the SWGS not refer to this method as Klee and Carruth.*

The standard deviation (SD) was selected based on field data from similar solid waste sorting events conducted in southern California in 1990. Klee and Carruth's selection of SD was based on the data they collected over 20 years ago at seven solid waste incineration facilities in Utah, Georgia, Virginia, Wisconsin, Tennessee, and Ohio. In the final draft, the method used should not be referred to as Klee and Carruth, although the procedure developed by Klee and Carruth in their August 1970 paper published in the Journal of the Sanitary Engineering Division was used as guidance in developing the sampling methodology.

21. *The residential sector represents 49% of the quantity of solid waste disposed (page 2-5A, Figure 2-1). Yet, only four residential samples were collected. These four samples had a mean weight of 161.5 pounds, significantly below the minimum 200 pounds per sample recommended by the Klee and Carruth method. Page 2-12 (Appendix C-5) states, "A minimum target weight of 200 pounds per sample was set for the sampling program." Staff questions whether or not the small sample number and weights provide data that are indeed representative of the residential sector. For these data to be acceptable, one must show how it was determined that four samples with a mean weight significantly below 200 pounds would result in representative data for that sector (CCR Section 18722[h]). In addition, Table 2-4 shows that six samples should have been taken when the highest composition is 35%. Board staff calculated that the Klee and Carruth method, based on a 0.04 precision level, would require the collection of 10 samples.*

Due to the complexity of the waste collection and disposal system in the unincorporated region of Los Angeles County (e.g. multiple waste haulers crossing jurisdictional boundaries and disposing of waste at numerous transfer stations), it was not feasible to sample waste at a disposal facility or transfer station. A program was designed to collect samples at the source of generation. This ensured that the samples were collected from within the jurisdiction and from the intended source (i.e. residential, commercial, or industrial). In some cases, the amount of waste available at the source was less than 200 pounds. In these cases, the entire amount of available waste was collected for sorting. In the case of the residential samples, this may have involved collecting waste from numerous houses along the randomly selected block. Because the samples were randomly chosen and were definitely from the unincorporated County and from the specified source of generation (i.e. residential, commercial, or industrial with no chance of mixed loads), the sample results are considered valid and representative of the County's waste.

22. *The mean commercial sample weight is 97.9 pounds and the mean industrial sample weight is 148.8 pounds. Page 2-12 (Appendix C-5) states "A minimum target weight of 200 pounds per sample was set for the sampling program." Please explain how samples weighing significantly less than 200 pounds were*

considered acceptable in meeting the stated minimum target weight. For these data to be acceptable, one must show how such low sample weights can provide data which are representative of the waste composition of the two sectors (CCR Section 18722[h]).

See response to comment no. 21 above.

23. *Working Group 4 - East San Gabriel Valley Area*

The calculations for determining the sample number for the residential, commercial, and industrial sectors were based on the assumption that the single largest waste type was paper or yard waste and the percent composition would be in the range of 35 percent. The Klee and Carruth method requires a jurisdiction to estimate its percent waste composition by use of existing published data about the jurisdiction, and/or published data on percent waste composition from other jurisdictions. The source of this value shall be stated in the waste generation study (CCR Article 6.1 Appendix 1[ii]). Please describe the methodology followed in applying this method and show the calculations for determining the sample numbers.

The determination that paper or yard waste would constitute approximately 35% of the various sectors' waste streams was based on the results of solid waste generation studies conducted by EMCON for other cities in Los Angeles County. Specifically, the cities of Burbank and Vernon were used as relative jurisdictions. For the City of Burbank, paper constituted 37.1% of the overall disposal waste stream and yard waste constituted another 10.9%. In Vernon, paper was 32.8% and yard waste, another 37.8%. The methodology used to select the number of field samples was presented in Section 2.2.3.1 of the East San Gabriel Valley preliminary draft SRRE (Appendix C-5 of final SRRE).

24. *The sample size formula used for the Klee and Carruth method is contained on page 2-9. Board staff questions the validity of the precision level (Δ-delta) used in this formula. A precision level of 0.05 was selected for use in the formula. However, a precision level of 0.02 was shown as being used in the formula? Is the Δ value used for calculating σ, based on the precision level desired or the confidence interval desired? Please show how the formula in Appendix B-2 is equivalent to the formula in CCR Article 6.1, Appendix 1, 2.a.(ii).*

See response to comment no. 19.

25. *Sample sizes were calculated using a standard deviation (SD) of 0.20. The SD (z and s values), remain constant (1.645 and 0.1632, respectively) in the Klee and Carruth formula and are based on a sample weight of 200 pounds or more. Page 2-10 states that, "A minimum target weight of 200 pounds per sample was set for the sampling program." The samples collected from the commercial sector had a mean sample weight of 178.1 pounds (Table 2-7). Using different SD values then the constant values intended and applying the formula to sample weights less than 200 of pounds, does not provide data that can be considered representative based on the Klee and Carruth Method. As a result of altering the SD values in the formula and applying it to low sample weights, Board staff does not consider (that) the method used can accurately be termed Klee and Carruth, and request that the SWGS not refer to this method as Klee and Carruth.*

The standard deviation was selected based on field data from similar solid waste sorting events conducted in southern California in 1990. Klee and Carruth's selection of SD was based on the data they collected over 20 years ago at seven solid waste incineration facilities in Utah, Georgia, Virginia, Wisconsin, Tennessee, and Ohio. In the final draft, the method used should not be referred to as Klee and Carruth, although the procedure developed by Klee and Carruth in their August 1970 paper published in the Journal of the Sanitary Engineering Division was used as guidance in developing the sampling methodology.

26. *Working Group 5 - Southeast Area*

Table 2-6, page 2-15 indicates that the residential sector was divided into three sub-groups. Please provide an explanation for why sub-groups were used and how the unincorporated County is represented within the sub-groups.

As allowed by the CIWMB guidelines and approved by the CIWMB (letter dated February 7, 1991), the waste characterization study conducted for the Southeast Area utilized pre-existing solid waste composition data supplemented with selected field sampling to verify the assumptions made. This approach resulted in a significant cost savings to the members of the group. To apply this approach, all of the members of the Southeast Area were

subdivided into groupings based on similar characteristics. Using the information provided by the County, as well as additional demographic and economic characteristics, the unincorporated areas were included in Residential Group 1.

As described in Section 2.2.3 of the Southeast Area SWGS, profiles were developed for the residential, commercial, and industrial sectors within the unincorporated areas. The residential profile included information on population, mix of dwelling types, average per capita income, number of persons/household, and average population and housing density. Based on this information, which was obtained from several sources, the County areas were defined as Residential Group 1.

27. *A total of seven residential samples and nine commercial samples are listed in Table 2-6. Please clarify if these samples were to represent the amount collected for the unincorporated County or were the samples aggregated into a pool of data that represent all the jurisdictions within Subgroup 1. If the samples represent the aggregate waste from all the jurisdictions within Subgroup 1, please discuss the method used to disaggregate the data to represent the unincorporated County (CCR Section 18722[f][[5]).*

The samples sorted and characterized are representative of the subgroups as a whole, i.e., the 7 residential samples and 9 commercial samples sorted provided the composition data for all of the jurisdictions in Subgroup 1 including the County areas. The composition data (see Table 2-7) were then applied on an individual basis to each member of the group to obtain waste type percentages and weight.

28. *Table 2-6 does not include any reference to the industrial sector. Please provide information on the number of samples collected for the industrial sector, and the sample weights, to support the position that the data are representative (CCR Section 18722[h]). If the samples represent the aggregate waste from all the jurisdictions within the Working Group, please discuss the method used to disaggregate the data to represent the unincorporated County (CCR Section 18722[f][5]).*

Industrial waste composition data from the City of Santa Fe Springs were used to estimate the composition of the industrial waste stream of the cities and unincorporated areas in Industrial Group 2.

These compositions were verified to be statistically valid through actual field sampling using an Analysis of Variance Procedure (see Section 2.2.5 and Appendix B).

29. *"Agricultural wastes were sorted into other organics." This practice is acceptable only if neither "agricultural wastes" or "other organics" are targeted in an existing or planned agricultural waste diversion program. Specific requirements are addressed in PRC Section 41781 for the diversion of agricultural wastes. In addition, only those waste types identified in the initial SWGS can be counted towards the statutory diversion mandates (CCR Section 18724[d]).*

    As no agricultural crop residues were found in the field sampling, any reference to sorting them into "other organics" or claiming diversion credit for agricultural crop residues, has been deleted from the report.

30. *An analysis of variance (ANOVA) procedure was conducted on waste disposal data of Santa Fe Springs and subgroup 1 jurisdictions. Data from Santa Fe Springs were considered comparable data. However, no information was provided that demonstrated the comparability of Santa Fe Springs and the unincorporated County. The information that was presented compared Santa Fe Springs to the subgroup 1 jurisdictions as a whole. Showing comparability to subgroup 1 jurisdictions does not show comparability to the unincorporated County. The regulations on the use of comparable data (CCR Section 18722[I][4] and 18724[C]) make no allowances for this approach to data management. Staff could not determine why the SWGS chose to use waste composition data from Santa Fe Springs if Subgroup 1 jurisdictions already had composition data available from the waste sort they conducted. Please clarify the reason(s) for using the ANOVA procedure if representative waste sort data for the Subgroup 1 jurisdictions were already available.*

    The unincorporated county was grouped with subgroup 1 cities, including Santa Fe Springs, because of common characteristics found in housing, planning, and land-use. Based on this comparability, existing composition data from Santa Fe Springs was used for all subgroup 1 cities. The methodology then went one step further and verified that the Santa Fe Springs data was

33. *Page 2-21, Allocation of Data:*

Composting facilities were surveyed to obtain estimates on the quantity of wastes collected from the unincorporated County. Public Resources Code Section 40194 includes composting facility in the definition of a solid waste facility. As such, composting facilities are subject to the permitting requirements of PRC Sections 44001 and 44002. If the local composting facilities are not permitted or are not exempted from the permit requirements, material cannot be considered properly diverted and should not be included when quantifying total diversion. Please clarify the status of these facilities before claiming compost diversion. If a facility is not permitted, then wastes going to that facility cannot be considered properly diverted or disposed and would not be included in quantifying waste generation.

Section 5.2.1 of the East San Gabriel Valley and the South Bay SRREs state that no composting programs or facilities currently are documented within the County unincorporated areas. The 2,900 tons of yard waste identified as composted material in the Southeast Area Unincorporated County SRRE are attributable to United Pacific Corporation (UPC). Based on the unknown status of UPC's permit, this material should not be counted towards diversion.

34. *Page 2-22, 2.4.1.2 Other Residential/Business Recycling and Source Reduction:*

Please provide a discussion on the programs and activities responsible for the 5,879 tons of diverted materials listed in Table 2-15, and discuss the methods used to determine these diverted amounts (CCR Section 18722[h] and [i]).

Data listed in Table 2-15 were previously compiled for the unincorporated County of Los Angeles area south of the City of Whittier and north of the Cities of La Mirada and Santa Fe Springs (Area A). This data was compiled by Clements Engineers under contract to EMCON and reported in the Los Angeles County Source Reduction and Recycling Element prepared in conjunction with the Southeast Cities Integrated Waste Management Working Group. Because of the comparable nature of Area A and the County, the results of the previous study were extrapolated to the County. Population and employment data were considered in this process.

35. *Page 2-23, 2.4.2 Waste Diversion Survey:*

A survey of haulers provided information on the composition and quantity of materials diverted by haulers. Please state the total number of useable responses received from the 250 sent out to show the data are representative (CCR Section 18722[h]).

Hauler responses for the East San Gabriel Valley are 14 out of 33, for the South Bay area they are 11 out of 50, and for the Southeast area the responses received were 60 out of 64.

36. *Page 2-26, 2.4.3.3 Telephone Survey:*

Amounts attributed to source reduction are contained in Table 2-16. However, no calculations or discussion of the methods used to quantify source reduction are included. Please provide information describing how the source reduction amounts were derived and what methods were used to quantify it as required by PRC Section 41033 and CCR Section 18734.2.

A telephone survey was conducted to estimate quantities of materials source-reduced by businesses and residents in the unincorporated County. The survey was not intended to be a random or representative sampling of the entire County and was not used as such. The results of the telephone survey were not extrapolated to the entire County.

A given amount of time was allotted for calls to thrift shops, diaper services, tire recapping businesses, and appliance repair shops. Business representatives were asked to estimate the type and quantity of materials repaired or reused per week or per month. Because every business in the County was not contacted by telephone, the diversion quantities identified most likely fell short of the total quantities of material diverted by these types of businesses.

Appliances were purchased from second hand stores and reused by County residents. The conversion factors used for these appliances were from mail order catalogs. Recapped tires were also purchased and used. Conversion factors were from the National Recycling Coalition and from EMCON In-House Values.

Only one diaper service could be documented as serving the unincorporated areas. The company was able to provide a number

of accounts for the area. This number was divided among the area on a population percentage basis. The diaper service stated the average number of diapers used per week per account is 80. The conversion factor of 0.4 pounds per diaper was used (Recycling Today, 1989).

37. *Appendix B-11 Conversion Factors for Waste Types*

Please provide explanations of how measurements were obtained for all conversion factors referenced as EMCON In-House values, EMCON Field Data Measurements, and EMCON Measured Values (CCR Section 18722[f][1]).

Explanations of how conversion factors were obtained are included in Appendix B-7 of the Preliminary Draft SRREs for both the East San Gabriel Valley and the South Bay area.

Source Reduction Component (Section 3)

38. *PRC Sections 41050 through 41054 address the requirement for each city SRRE to include a Source Reduction Component. CCR Sections 18733 through 18733.6 identify the contents of the SRRE model component format, generally what <u>each</u> component must address. CCR Sections 18734 through 18734.3 specifically identify additional information to be included or at least addressed in the Source Reduction Component. Please provide the information as required by the code and the regulations.*

The Source Reduction Components for the East San Gabriel Valley, Southeast Area, and the South Bay were included in the original drafts of the SRREs as Section 3. Further, these components follow to the letter the requirements of the regulations for format and content.

39. *Specifically missing from the component are descriptions of existing programs, and the types of materials and quantities of materials diverted, by program. Noticeably missing under Section 3.3, Existing Programs, page 3-3, was a discussion of activities undertaken by the private sector. Also, not all the materials listed as "diverted" are accounted for by the activities identified.*

The requested information is provided in the SWGS and the Source Reduction Components for groups 3, 4, and 5. However, it is unclear from page 3-3 how the information provided by EMCON

was utilized to develop "summary data." For example, a total of 4,236 tons of material were diverted in the Southeast Area alone; the total amount of material reported as being diverted through source reduction in the entire county is 3,345 tons per year.

Recycling Component (Section 4)

40. *Page 4-5, Existing Programs*

Section 4.3 states that there are some established recycling programs in the County. There was not identification of jurisdiction specific recycling programs for the residential, commercial or industrial sectors under this discussion. Are all the sector program purely voluntary? Also, this section does not identify the materials targeted by each of the existing recycling programs. How are the postconsumer yard and wood waste recycled? Is the wood waste recycled as fuel? What are the "assorted materials" recovered at the transfer stations and in the curbside program?

Tables 2-12 in the SRREs prepared by EMCON for Group 3, 4, and 5 present the materials diverted by sector. The programs responsible for the diversion are discussed in Section 4.2.1. The programs identified by EMCON are purely voluntary, with the exception of CRV glass, and plastic, i.e., the mandatory fee collected at the time of purchase.

The materials targeted by existing programs have not been identified by program for existing activities, however, Table 4-5 (for Groups 3 and 4) and Table 4-8 (for Group 5) present the targeted materials for future programs.

Postconsumer yard and wood waste was most typically recycled as alternative fuel in the areas reviewed. The "assorted materials" referenced includes any combination of the materials presented on Table 4-2 of the County's Preliminary Draft.

41. *Page 4-37, Buy-Back Centers:*

How many buy-back centers located throughout the unincorporated area of Los Angeles County, and how many are owned by the County?

The County will need to supply this information.

42. *The County of Los Angeles also needs to address contingencies for shortfalls in the recycled material market scenario, since a recycling vendor or market could become glutted with diverted materials from numerous sources (jurisdictions, industry, etc.).*

The following information can be added to the final SRRE:

The waste diversion study identified a number of end users for the materials diverted by the selected alternatives. For the targeted materials, markets are generally strong in Southern California, due to the presence of strong export buyers and available local end users. In fact, much of the material collected in San Diego and Arizona must be routed through Los Angeles port facilities, yielding a competitive marketing advantage to locally derived materials. Exportation plays a key role in the local marketplace with its capacity to decrease volatility in often fluctuating markets. Recycling programs that have been successful in diverting large quantities of materials have sometimes glutted local markets. It is important that market development at State and local levels be coordinated with implementation of diversion programs to maintain a balance between supply and demand for recycled materials.

Each targeted material is described below, indicating the status of the current markets, and if a problem is indicated, identifying the marketing strategy to move the diverted materials.

Wastepaper Grades. There are a wide variety of wastepaper dealers and consuming mills in the Los Angeles area, as well as access to Pacific Rim markets. These remain accessible to materials diverted from the City. there is also considerable future capacity being constructed for the de-inking of newspaper. Construction markets remain depressed, which may lower the value of mixed papers. Mixed papers will not be collected in the short term in order to assess the future capacity of the market place to accept these fibers. The markets for waste paper should improve in the short term due to recent legislation requiring minimum amounts of recycled fibers in newsprint. Minimum content legislation in California and other states as well as increased consumer demand for paper with recycled fiber has resulted in construction of increased capacity to use recycled paper mills in California and other Western states.

representative by conducting limited field sampling (conducted at Paramount Resource Recovery Facility during February, 1991). The ANOVA procedure was used for the purpose of this verification, and showed that the Santa Fe Springs data was statistically representative for subgroup 1 cities and the County.

31. *All the jurisdictions within Subgroup 1 have the same percent waste composition for the residential, commercial, and industrial sectors' disposed waste. It appears that the aggregate waste sort composition data were not disaggregated to reflect the waste composition of the individual jurisdictions. Please provide a discussion explaining how this method produces representative data since the text has not shown that the jurisdictions with Subgroup 1 have comparable demographics, economics, number and types of commercial/industrial units, or other demonstrations of comparability (CCR Sections 18722[h] and 18724[c]).*

The unincorporated County was grouped with subgroup 1 cities, including Santa Fe Springs, because of common characteristics found in housing, planning, and land-use as determined by a Local Conditions Survey completed by the County and subgroup 1 cities. Based on this comparability, existing composition data from Santa Fe Springs was used for all subgroup 1 cities. The methodology then went one step further and verified that the Santa Fe Springs data was representative by conducting limited field sampling (conducted at the Paramount Resource Recovery Facility during February, 1991). The ANOVA procedure was used for the purpose of this verification, and showed that the Santa Fe Springs data was statistically representative for subgroup 1 cities.

32. *Page 2-18, Table 2-12:*

Please provide a full bibliographic citation for the source of the weight to volume conversion factor contained in this table (CCR Section 18722[f][4][A]).

The citation for the weight-to-volume conversion factor is:

Tchobanoglous, George, et. al, 1977, Solid Wastes: Engineering Principles. and Management Issues, New York, McGraw Hill Book Company.

Glass Containers. The glass market is a traditionally stable market. High prices for cullet mandated by the beverage container program currently conflict with the over-supply of mixed cullet. The glass industry can use only relatively small amounts of mixed color cullet in the manufacture of new containers. Mixed color cullet, such as is typically collected in curbside programs, has become very difficult to market. There is also a surplus of green cullet on the market. Glass manufacturers in California produce primarily clear glass, however, current recycling programs focus on beverage containers which are mainly green and amber. This result in a disproportionate amount of the colored cullet being returned through the system. There is recent legislation in California mandating increased usage of recycled glass in containers, but this has yet to spur construction of additional capacity. However, Southern California is home to a number of glass container producers; therefore, the effect of oversupply is less pronounced in the area. Other outlying areas may experience greater dislocation than that experienced by the City.

43. *Page 4-51, Facility Needs:*

This section states that there is no anticipated need for additional facilities to implement the recycling programs. Won't the curbside collection, multi-family collection, and MRF programs necessitate additional facilities for the storage of vehicles, containers, and collected materials? Please address this as required by CCR Section 18733.4(e).

Any facilities associated with curbside, multi-family, or MRFs will be privately developed. The County has no intention of participating in any facilities.

Composting Component (Section 5)

44. *Page 5-2, Short- and Medium-Term Market Development Objectives:*

It doesn't appear to staff that any of the selected alternatives support the objective requiring the "implementation of State mandated use of compost." Some of the Support Measures alternatives are to conduct market surveys, to develop procurement guidelines, and to divert yard waste from disposal but none address the idea of requiring local use of compost by city, county, state, or

federal facilities. How would the County propose to increase the markets for compost without some mandatory ordinance or plan?

The objectives listed in the County's SRRE are different than those presented in the SRREs provided by EMCON for groups 3, 4, and 5. EMCON is not prepared to address this comment.

45. *Page 5-4, Description of Alternatives:*

Although the descriptions of the alternatives presented here are good, please expand them to include all the items required by CCR Section 18733.3. Specifically, the discussion does not include identification of the hazards associated with the alternatives, the adaptability of the alternative to change, specifics about institutional barriers, and the costs associated with each alternative.

The information in the County's SRRE is different than that contained in EMCON SRREs for groups 3, 4, and 5.

EcoSource INTERNATIONAL
921 Westwood Blvd., Suite 224 • Los Angeles, CA 90024
(213) 208-1887 • FAX (213) 208-8823

Mr. Mike Bohlander
Supervising Civil Engineer II
Los Angeles County
Solid Waste Management Committee/
Integrated Waste Management Task Force
900 S Fremont Avenue
Alhambra, California 91803-1331

May 20, 1992

Dear Mike:

As per your request, here are EcoSource's responses to the CIWMB's comments you specified we answer. We have written down the comment and our response for both Group 1 and Group 2.

If you have any difficulty in understanding our responses, please give me a call.

A hard copy follows this fax in the mail.

Sincerely,

Mary Loquvam

Mary Loquvam

Los Angeles County - Unincorporated Area SRRE
CIWMB Component-Specific Comments
EcoSource International Responses
May 20, 1992

Printed on recycled and recyclable paper

Comment #1 (pg. 1, paragraph 1)
Please identify all permitted transfer stations, permitted solid waste transformation facilities and permitted solid waste disposal sites used by the County of Los Angeles for the unincorporated area, as required by CCR Section 18722(i). Solid waste placed in illegal dumps or unpermitted landfills cannot be counted as a part of the total solid waste generated (or disposed) in the SWGS [CCR Section 18722(g)(1)].

Response #1
For North Unincorporated Areas (Group 1) no permitted transfer stations were identified. Sunshine Canyon, Chiquita Canyon, Lancaster Landfill, and Antelope Valley Landfill are the permitted solid waste disposal sites used by the County in this area.

For Northwest Unincorporated Areas (Group 2) no permitted transfer stations were identified. Calabasas Landfill is the permitted solid waste disposal site used by the County in this area.

Comment #2 (pg. 1, paragraph 2)
PRC Section 41780 excludes inert solids, agricultural wastes, scrap metals, white goods, and sludge from the definition of solid waste, except those "...which were disposed of at a permitted disposal facility as of January 1, 1990, which are diverted and which are recycled, composted, or reuse." Therefore, please account (e.g. landfill records) for the presence of the above named items in the landfill(s), so that diversion credits could be applied to them.

Response #2
For Group 1:
inert solids - disposed of at Lancaster Landfill as per Doug Corcoran, General Manager.
agricultural wastes - no diversion credit claimed
scrap metals - disposed of at Lancaster Landfill as per Doug Corcoran, General Manager.
white goods - disposed of at Lancaster Landfill as per Doug Corcoran, General Manager.
sludge - no diversion credit claimed

For Group 2:
inert solids - disposed of at Calabasas Landfill as per Bob Foster, Assistant Foreman.
agricultural wastes - no diversion credit claimed
scrap metals - disposed of at Calabasas Landfill as per Bob Foster, Assistant Foreman.
white goods - disposed of at Calabasas Landfill as per Bob Foster, Assistant Foreman.
sludge - no diversion credit claimed

Comment #3 (pg. 1, paragraph 3)
In your SWGS, please include an outline of a system for gathering data on the quantities and composition of solid waste, generated, diverted, and disposed which state when and from whom reports will be collected, as required in CCR Section 18722(o).

Response #3

For Group 1, please see the Monitoring and Evaluation Sections:

Source Reduction, pg.4 -36 to 4-38, Section 4.7.
Recycling, pgs. 5-18 to 5-19, Section 5.4.5; pgs. 5-27 to 5-28, Section 5.5.5; pgs. 5-33 to 5-34, Section 5.6.5; pgs. 5-40 to 5-41, Section 5.7.5.
Composting, pg. 6-11 to 6-12, Section 6.7.
Special Waste, pgs. 7-9 to 7-10, Section 7.7.

For Group 2, please see the Monitoring and Evaluation Sections:

Source Reduction, pg.4-22 to 4-23, Section 4.9.
Recycling, pgs. 5-9 to 5-10, Section 5.10; pgs. 5-15 to 5-16, Section 5.17; pg. 5-17, Section 5.21
Composting, pg. 6-7 to 6-8, Section 6.12.
Special Waste, pgs. 7-5 to 7-6, Section 7.11.

Comment #4 (pg. 1, paragraph 4)

The discussion on seasonal variation does not provide the information required by the regulations. Quantifying seasonal variations in the solid waste stream is accomplished by identifying distinct cyclical patterns of local climate, demography, trade or commerce, as per CCR Section 18720(65) and 18722(i)(2); seasonal variation is not only in reference to specific calender seasons (i.e. fall, winter, etc). After identifying the seasonal variations, the jurisdiction selects the six month sampling period that satisfies the requirements of PRC Section 14780(a)(1). The jurisdiction identifies the number of seasons that occurs within the six month sampling period and states how many times each identified season was sampled (e.g., two seasons identified in the six month period with one week of sampling in each). Please state the six month sampling period selected, the number of seasons identified in that period, and the number of times each season was sampled.

Response #4

For Groups 1 & 2

The County determined composition of disposal for the residential sector from comparable jurisdiction (CJ) landfill sorts conducted for the City of Azusa, California. The City of Azusa obtained a stratified random sample of its residential wastestream by selecting loads from disposal trucks collecting from neighborhoods with different demographics. The City then sampled these loads using random grid sections of these loads. Sampling for Azusa took place during a six month period from April to November 1990, encompassing the spring, summer, and fall seasons.

Comment #5 (pg. 1, paragraph 5)

For solid waste disposed in permitted landfills, please report the quantity, in both weight and in-place volume (in the landfill) [CCR Section 18722(f)(4)].

Response #5

For Group 1

In the SWGS see Tables 1-5, and in the SRRE see Appendix 3-B, Tables 3-B-1 to 3-B-5.

For Group 2

In the SWGS see Tables 1-5, and in the SRRE see Appendix 3-2 to 3-6.

Comment #6 (pg. 2, paragraph 2)
Page 2-7, 2.3.1.1 Private Services:
Surveys were sent to all waste haulers to obtain information on disposed waste amounts. Please provide a discussion on the number of usable responses received from the haulers to support the position that the data are representative of the jurisdiction's waste stream [CCR Section 18722(h)].

Response #6
For both Groups 1 & 2 no hauler surveys provided usable information.

Comment #7 (pg.2, paragraph 3)
Page 2-9, 2.1.1.3 Marine Waste Disposal:
Marine wastes are collected from the beaches and harbors of Manhattan and Hermosa Beach. Please identify the jurisdiction(s) in which these beaches and harbors are located. If the beaches and harbors are within the jurisdictions of Manhattan and Hermosa Beach then the waste generated in these locations should be included with the waste amounts disposed by these jurisdictions, regardless of the jurisdiction that collects the waste. The unincorporated County need only identify and quantify the marine waste that is generated within its jurisdictional boundaries [CCR Section 18722(i)(3)].

Response #7
Group 1 does not generate any marine waste.
Group 2 does generate marine waste. See the Solid Waste Generation Analysis, Section 3.5 for the quantities of materials disposed by the beaches. See also Tables 3-2 to 3-5 for quantities by waste category and type.

Comment #8 (pg.2, paragraph 4)
Page 2-11, 2.3.3 Solid Waste Generation:

This section contains a discussion of the methodology used to ascertain the waste composition. However, this discussion did not provide Board Staff with a sufficient understanding of how waste composition was determined. Please clarify the following points:

In the paragraph that begins, "Field data for the unincorporated County..", please explain the relationship between the waste composition of the unincorporated County and the data from a group of cities in the Working Groups. Were field samples collected from the unincorporated County's disposed waste or is the composition of the unincorporated County's disposed waste based on comparable data?

The succeeding paragraphs, "The solid waste composition study was designed to take advantage of the similarities.." and "An average of the aggregate data..", imply that waste composition data from the Working Group cities were used as comparable data to determine the unincorporated County's disposed waste composition. A jurisdictions may used pre-existing solid waste generation studies as comparable data to estimate its waste generation composition. This implies that the composition of the total waste generated in one jurisdiction in comparable to the composition of the total waste generated in another jurisdiction. Because different diversion practices can and will exist between jurisdictions, the composition of disposed may not be comparable. It is therefore recommended that waste stream composition estimates which are derived from comparable data be based on the composition of the total waste generated composition rather than the composition of the waste

disposed. the jurisdiction could then determine its waste disposal composition by adjusting the comparable generation composition data based on the composition of its own diversion data.

Response #8
For both Group 1 & 2 comparable jurisdiction data (disposal composition) were used to estimate disposal composition for the residential sector of each Group.

For Group 1 field samples were used to estimate disposal composition for the commercial, industrial, and other sectors.

For Group 2 field samples were used to estimate disposal composition for the commercial and other sectors.

Comment #9 (pg.3, paragraph 1)
A jurisdiction using a SWGS or data from another jurisdiction with similar demographic, economic, and solid waste characteristics shall list and describe in its SWGS all the major characteristics which are similar between the two jurisdictions [CCR Section 18724(c)].

Response #9
Group 1 & 2
Azusa composition was applied to Group 1 & 2's residential total disposal tonnages to determine tonnages of each waste type. EcoSource used Azusa's residential disposal composition data because of the thoroughness of Azusa's waste study and because, typically, residential waste among similar cities, is quite homogeneous and does not differ greatly.

Comment #10 (Pg.3, paragraph 2)
The composition of the disposed waste for the unincorporated County was determined from aggregated data contained in Appendix B (B-5?). This Appendix contains data from Groups C3, C1, C2, R3, and R1 cities. Staff interprets C to denote the commercial sector and R to denote the residential sector. However, the industrial sector is not represented in these data. Please provide a discussion of the methodology for determining the composition of the disposed industrial waste.

Response #10
Group 1 see response #8.
Group 2 has no industrial sector.

Comment #11 (pg.3, paragraph 4)
Page 2-11, 2.3.4 Field Sampling Procedures:

The text states that the sampling procedures used for each of the working groups are described in Appendix C. However no sampling methodologies for Working Groups 1, 2, and 6 are contained in Appendix C. Please provide a discussion on the sampling methodologies for these Working Groups, or include an explanation of how the waste composition for these Working Groups was determined. In addition, if in fact, field samples were collected for calculating the disposed waste composition of the unincorporated County, staff cannot determine the total number of samples collected.

Response #11
For Group 1 please see Appendix B - Field Sorting Methodology of the Solid Waste Generation Study and Appendix D - Solid Waste Generators Sampled for a list of the sites sampled.

For Group 2 please see the Solid Waste Generation Analysis in the SRRE, Section 3.4 and 3.5, page 3-8. 37 commercial samples and 1 "other" (beach) sample were taken.

Briefly the sampling methodology used consisted of taking representative samples of 100 to 200 pounds. Each sample was then sorted into 5 gallon containers according to waste type. Each waste type was weighed and recorded. Tare weights of the 5 gallon containers were subtracted.

Comment #12 (pg.6, paragraph 1)
Page 2-18, Table 2-12:

Please provide a full bibliographic citation for the source of the weight to volume conversion factor contained in this table [CCR Section 18722(f)(4)(A)].

Response #12
Please see Table 1 for the conversion factors EcoSource used to convert weight to volume. The following are references for these conversion factors.

Browning-Ferris Industries. *Waste Compaction Study for the Recyclery at Newby Island*. Browning - Ferris Industries, San Jose, California. October, 1989.

Chagnon, Robert M. "Granulation for Post-Consumer Plastics Recycling," *Resource Recycling*, August, 1990.

Commoner, Barry, et al. *Development and Pilot Test of an Intensive Municipal Solid Waste Recycling System for the Town of East Hampton, Volume II*. New York State Energy Research and Development Authority, 1990.

Conveyer Equipment Manufacturers Association. Classification and Definitions of Bulk Materials. Conveyer Equipment Manufacturers Association: Rockville, Maryland, 1970.

Steps in Organizing a Municipal Recycling Program. New Jersey Department of Environmental Protection, Office of Recycling.

Wilson, David Gordon, Editor. *Handbook of Solid Waste Management*. Van Nostrand Reinhold: New York, New York, 1977.

Table 1
Weight to Volume Conversion Factors

	Volume Conversion (lbs/cu yd)
Paper	
Corrugated Containers	760
Kraft Paper	798
Mixed Paper	798
Newspaper	798
High Grade Ledger	798
Other Paper	740
Plastics	
HDPE Containers	355
PET Containers	366
Film Plastics	667
Polystyrene Foam	166
Other Plastics	166
Glass	
Refillable Bvg Contners	2,800
CA Redemption Value	2,800
Other Recyclable Glass	2,800
Other Non-recyl Glass	2,800
Metals	
Aluminum Cans	250
Bi-Metal Containers	557
Ferrous Metals	557
Tin Cans	557
Non-Ferrous Metals	550
Aluminum Scrap	550
White Goods	994
Other Metals	994
Yard Waste	
Leaves & Grass	1,600
Prunings	1,500
Problem Yard Waste	1,500
Other Organics	
Food Waste	2,000
Rubber Products	343
Wood Waste	595
Agricltrl Crop Residues	1,500
Manure	1,500
Textiles & Leather	435
Other Misc Organics	500
Other Wastes	
Inert Solids	1,700
Hsld Hazardous Waste	557
Aseptic	740
Disposable Diapers	740
Other Inorganics	1,700
Special Wastes	
Dead Animals	1,688
Sewage Sludge	1,688
Tires	343
Asbestos	1,700
Auto Shredder Waste	166
Auto Bodies	994
Other Special Wastes	1,700
Miscellaneous	
Miscellaneous	1,700

Comment # 13 (pg.6, paragraph 2)
Page 2-21, Allocation of Data:
Composting facilities were surveyed to obtain estimates on the quantity of wastes collected from the unincorporated County. PRC Section 40194 includes composting facility in the definition of a solid waste facility. As such, composting facilities are subject to the permitting requirements of PRC Sections 44001 and 44002. If the local composting facilities are not permitted or are not exempted from the permit requirements, material cannot be considered properly diverted and should not be included when quantifying total diversion...

Response #13
EcoSource did not identify any composting facilities in Group 1 or 2.

Comment #14 (pg.6, paragraph 3)
Page 2-22, 2.4.1.2 Other Residential/Business Recycling and Source Reduction:
Please provide a discussion of the programs and activities responsible for the 5,879 tons of diverted materials listed in Table 2-15, and discuss the methods used to determine these diverted amounts...

Response #14
Group 1 please see the Existing Conditions section of each diversion component in the SRRE for a full discussion:

Source Reduction, Section 4.3, pages 4-7 to 4-8.
Recycling, Section 5.3, pages 5-3 to 5-7
Composting, Section 6.3, page 6-5 (no diversion claimed)
Special Waste, Section 7.3, page 7-3 to 7-4 (no diversion claimed)

Group 2 please see the Existing Conditions section of each diversion component in the SRRE for a full discussion:

Source Reduction, Section 4.4, page 4-5 (no diversion claimed)
Recycling, Section 5.4, page 5-3
Composting, Section 6.4, page 6-3 (no diversion claimed)
Special Waste, Section 7.4, page 7-2 (no diversion claimed)

Comment #15 (pg.7, paragraph 1)
Page 2-23, 2.4.2 Waste Diversion Survey
Surveys were sent to all waste haulers to obtain information on disposed waste amounts. Please provide a discussion on the number of usable responses received from the haulers to support the position that the data are representative of the jurisdiction's waste stream [CCR Section 18722(h)].

Response #15
For both Groups 1 & 2 no hauler surveys provided usable information.

Comment #16 (pg.7, paragraph 2)
Page 2-26, 2.4.3.3 Telephone Survey:
Amounts attributed to source reduction are contained in Table 2-16. However no calculations or discussion of the methods used to quantify source reduction are included. Please provide information describing how the source reduction amounts were derived and what methods were used to quantify it as required by PRC Section 41033 and CCR Section 18734.2.

Response #16
Please see the Source Reduction Existing Conditions section of the SRRE for a full discussion:
Group 1, Source Reduction, Section 4.3, pages 4-7 to 4-8.
Group 2, Source Reduction, Section 4.4, page 4-5 (no diversion claimed)

Comment #17 (page 7, paragraph 4)
PRC Sections 41050 through 41054 address the requirement for each SRRE to include a Source Reduction Component. CCR Sections 18733 through 18733.6 identify the contents SRRE model component format, generally what each component must address. CCR Sections 18734 through 18734.3 specifically identify additional information to be included or at least addressed in the Source Reduction Component. Please provide the information required by the code and regulations.

Response #17
To the best of EcoSource's knowledge we have complied with the code and regulations for the Source Reduction component.

Comment #18 (page 7, paragraph 5)
Specifically missing from this component are descriptions of existing program and the types of materials and quantities of materials diverted by program. ...

Response #18
Please see the Source Reduction Existing Conditions section of the SRRE for a full discussion:
Group 1, Source Reduction, Section 4.3, pages 4-7 to 4-8.
Group 2, Source Reduction, Section 4.4, page 4-5 (no diversion claimed)

Comment #19 (page 8, paragraph 6)
Page 4-5, Existing Programs:
Section 4.3 states that there are some established recycling programs in the County. There was no identification of jurisdiction specific recycling programs for the residential, commercial, or industrial sectors under this discussion. Are all the sector programs purely voluntary? Also this section does not identify the materials targeted by each of the existing recycling programs...

Response #19
Please see the Existing Conditions section the SRRE for a full discussion:
Group 1, Recycling, Section 5.3, pages 5-3 to 5-7
Group 2, Recycling, Section 5.4, page 5-3

All the recycling programs identified by EcoSource are voluntary and privately operated.

Comment #20 (page 9, paragraph 2)
Page 4-37, Buy-Back Centers:
How many bu-back centers are located throughout the unincorporated area of Los Angeles County, and how many are owned by the County?

Response #20:
For Group 1, EcoSource identified only one buy-back center in the unincorporated area, Big Mike's, located in Canyon Country. This buy-back center is privately owned.

For Group 2, EcoSource did not identify any buy-back centers in the County unincorporated area.

Comment #21 (page 10, paragraph 1)
The County of Los Angeles also needs to address contingencies for shortfalls in the recycled materials market scenario since a recycling vendor or market could become glutted with diverted materials from numerous sources...

Response #21
EcoSource did not identify any market shortfall contingencies in the SRREs, but recommends stockpiling as one short term alternative.

Comment #22 (page 10, paragraph 2)
Page 4-51, Facility Needs:
This section states that there is no anticipated need for additional facilities to implement the recycling programs. Won't the curbside collection, multi-family collection, and MRF programs necessitate additional facilities...

Response #22
EcoSource has recommended that the private sector implement recycling programs selected in the SRREs. As such, the burden for facilities falls upon the private sector and not on the County.

Comment #23 (page 10, paragraph 6)
Page 5-2, Short- and Medium-Term Market Development Objectives:
It doesn't appear to staff that any of the selected alternatives support the objective requiring the "implementation of State mandated use of compost"...

Response #23
Please see the Market Development Objectives Section in the Composting Component of the SRRE:

Group 1, Section 6.2.3, pages 6-4 to 6-5.
Group 2, Section 6.3, pages 6-2 to 6-3.

APPENDIX H-4

Adjacent Cities' and Counties' Comments

Comments From Neighboring Cities and Counties on the County Source Reduction and Recycling Element, By Component

Date Received	City	Comment Number	General Comments
02/20/92	John F. Knipe City Engineer, MALIBU	2	There is no discussion of regionalization in the preliminary SRRE. The City would like to know how the County program alternatives are going to interact with their programs.
02/20/92	John F. Knipe City Engineer, CALABASAS	2	There is no discussion of regionalization in the preliminary SRRE. The City would like to know how the County program alternatives are going to interact with their programs.
			Recycling Component Chapter 4
02/05/92	Jeff L. Long Director of Public Works, LANCASTER	1	Sections 4.4.2.1.C and 4.4.2.3.E.F.G.- These sections of the SRRE discuss buy-back recycling centers along with methods for tracking tonnage data. Our suggestion is for the County DPW or the County LEA to implement a no-fee permitting system for recycling centers. The permit conditions would include provisions for monthly or annual tonnage data to be submitted to the County. Such a permitting system would put into place an information gathering network for use by the county and the cities in monitoring compliance with AB 939.
		2	Section 4.4.2.3.A.- This section discusses the siting of a Recycling Market Development Zone in unincorporated areas of the County. Our suggestion is to expand that concept to include cooperative efforts with cities to propose region-wide zones which incorporate communities as well as County areas. Such an approach may increase the chances of gaining approval from the CIWMB. The County could solicit requests from communities who wish to work with the LAC/DPW in establishing Recycling Market Development Zones.
		3	Section 4.5.3.8.- This section discusses the use of processed green wastes for use as landfill cover. Our suggestion is to pursue other uses of processed green wastes. For example, the material could be used as mulch in County parks or as low maintenance ground cover at other County facilities.
02/05/92	Mike Kapanpour Public Works Coordinator, LAWNDALE	1	The City supports the use of green waste as daily cover.

Comments From Neighboring Cities and Counties on the County Source Reduction and Recycling Element, By Component			
Date Received	City	Comment Number	Recycling Component Chapter 4 (cont.)
02/14/92	Kenneth D. Duke Public Services Director, INGLEWOOD	1	Section 4.2.1. - The City would be interested in participating in a regional MRF. A regional MRF was also proposed in Inglewood's SRRE.
		2	Section 4.4.2.3.C. - The City supports the concept of a ban on disposal of designated recyclables. However, would the rejected materials become the responsibility of the hauler or the generator? Would this be addressed in the public awareness campaign?
02/20/92	John F. Knipe City Engineer, MALIBU	1	In the County alternatives of the SRRE, a MRF was suggested. There was no mention of the funding aspect of a MRF and due to the immense cost involved with the design and construction of such a project, the City of Malibu would like to know if they would be required to participate in this cost in order to use the facility in the future.
02/20/92	John F. Knipe City Engineer, CALABASAS	1	In the County alternatives of the SRRE, a MRF was suggested. There was no mention of the funding aspect of a MRF and due to the immense cost involved with the design and construction of such a project, the City of Malibu would like to know if they would be required to participate in this cost in order to use the facility in the future.
02/28/92	Ronald P. Pierre Senior Staff Analysis, COUNTY OF ORANGE	1	Section 4.2. - the County indicates that it will consider a multi-regional recycling approach through the use of a MRF with neighboring jurisdictions during the short-term. It is not clear whether neighboring jurisdictions include adjacent cities and counties. Is the County of Orange included in your plans?
		2	Section 4.4. - the County needs to demonstrate how contamination of collected recyclables will be minimized.
		3	Section 4.5. - the County needs to indicate measures to be taken if unfavorable markets were to exist.
		4	The County needs to include monitoring methods, criteria for measuring program effectiveness, and contingency measures that are specific to each alternative.

Comments From Neighboring Cities and Counties on the County Source Reduction and Recycling Element, By Component			
Date Received	City	Comment Number	Composting Component Chapter 5
02/14/92	Kenneth D. Duke Public Services Director, INGLEWOOD	3	Section 5.4.4.6. - The SRRE states, "Given the strong regional demand for yard waste as compost for feedstock, the availability of potential markets is good." This is misleading and is contrary to our understanding that markets would have to be developed.
			Education Component Chapter 7
02/14/92	Kenneth D. Duke Public Services Director, INGLEWOOD	4	The City would be interested in a joint effort to provide training and conducting waste evaluations for selected businesses. It would be beneficial to businesses that are established in more than one city to have a uniform reporting procedure. For example, supermarket chains should be able to use the same reporting procedure from store to store.
02/28/92	Ronald P. Pierre Senior Staff Analysis, COUNTY OF ORANGE	5	The County needs to demonstrate that each alternative was evaluated, and provide justification for each alternative selected.
			Disposal Capacity Component Chapter 8
02/12/92	Mike Kapanpour Public Works Coordinator, LAWNDALE	3	The City supports the removal of solid waste by rail-haul, in concept. Details must be provided before formal support can be given.
			Funding Component Chapter 9
02/12/92	Mike Kapanpour Public Works Coordinator, LAWNDALE	2	The City is against any taxes and/or fees that affect Lawndale residents.
			Integration Component Chapter 10
02/28/92	Ronald P. Pierre Senior Staff Analysis, CO. of ORANGE	6	The County needs to provide task implementation time lines, indicate the available funding sources, and report the short-term costs of implementing the identified programs.

CITY OF BURBANK
275 EAST OLIVE AVENUE, P.O.BOX 6459, BURBANK, CALIFORNIA 91510-6459

January 29, 1992

Mr. David Yamahara
Assistant Deputy Director
Los Angeles County Department of Public Works
Waste Management Division
P.O. Box 1460
Alhambra, CA 91802-1460

Dear Mr. Yamahara:

RE: SOURCE REDUCTION AND RECYCLING ELEMENT AND HOUSEHOLD HAZARDOUS WASTE ELEMENT FOR UNION CORPORATED LOS ANGELES COUNTY

The Preliminary Draft of the Household Hazardous Waste Element addresses the Household Hazardous Waste Collection Program which is being provided for the entire County of Los Angeles by the County. On page 27, Section 8.2, the element delegates the following: The quantity of Household Hazardous Waste collected will be recorded by the city of origin; and the quantity and types of Household Hazardous Waste recycled and reused will be recorded by the city of origin.

Since the County has taken on the responsibility of the collections countywide and charges all cities for that service, it will be impossible for cities to measure volumes the County is collecting. The text must be changed to transfer the responsibility for this task back to Los Angeles County - Department of Public Works.

The County will also need to report those volumes to each city for their updates of Household Hazardous Waste Elements on an annual basis.

If you have any questions, please call Joy Hamilton at (818) 953-9515.

Sincerely,

Ora E. Lampman
Public Works Director

OL/JAH/kb

JAN92JAH3

CITY OF CALABASAS

February 18, 1992

David Yamahara, Assistant Deputy Director
Los Angeles County Department of Public Works
Waste Management Division
P.O. Box 1460
Alhambra, CA 91802-1460

Subject: Los Angeles County Source Reduction and Recycling Element (SRRE), Household Hazardous Waste Element (HHWE) & Negative Declaration

Dear Mr. Yamahara:

This letter is in response to the Los Angeles County request for the City of Calabasas to review and comment on the SRRE, HHWE and Negative Declaration. City staff has reviewed the documents and compiled the following comments:

1. In the County alternatives of the SRRE, a Material Recovery Facility (MRF) was suggested. There was no mention of the funding aspect of a MRF and, due to the immense cost involved with the design and construction of such a project, the City of Calabasas would like to know if they would be required to participate in this cost in order to use the facility in the future.

2. There is also no discussion of regionalization in the Preliminary SRRE. The City would like to know how the County program alternatives are going to interact with their programs.

If you have any questions regarding our comments, please contact Kimberly Collins at (805) 653-6597.

Very truly yours,

CITY OF CALABASAS

John F. Knipe KC

John F. Knipe
City Engineer

copy: Charles R. Cate, City Manager
Kimberly Collins, Recycling Coordinator

KC:ts
06100/3006
FCA161.LTR

Inglewood
california

ONE MANCHESTER BOULEVARD / P.O. BOX 6500 / INGLEWOOD, CALIF. 90301
FAX (213) 412-8737

INGLEWOOD
ALL-AMERICA CITY
1989

February 14, 1992

Thomas A. Tidemanson, Director
County of Los Angeles, Department of Public Works
P.O. Box 1460
Alhambra, CA 91802

Dear Mr. Tidemanson:

The Los Angeles County Source Reduction and Recycling Element (SRRE) and Household Hazardous Waste Element (HHWE) have been reviewed and we have prepared our comments accordingly.

SRRE

Recycling Component:

(See 4.2.1) We would be interested in participating in a regional materials recovery facility (MRF). A regional MRF was also proposed in the Inglewood SRRE.

(See 4.4.2.3C) We support the concept of a ban on disposal of designated recyclables, however would the rejected materials become the responsibility of the hauler or the generator? Would this be addressed in the public awareness campaign?

Composting:

(See 5.4.4.6) The SRRE states, "Given the strong regional demand for yard waste as compost for feedstock, the availability of potential markets is good." This is misleading and is contrary to our understanding that markets would have to be developed.

KENNETH D. DUKE
Public Services Director
TELEPHONE
412-5389

Education Component:

We would be interested in a joint effort to provide training and conducting waste evaluations for selected businesses. It would be beneficial to businesses that are established in more than one city to have a uniform reporting procedure. For example, supermarket chains should be able to use the same reporting procedure from store to store.

HHWE

If this is a joint effort between the County of Los Angeles, the County Sanitation Districts and the City of Los Angeles, it is recommended that residents of all cities within the County of Los Angeles be allowed to participate. It is implied that residents in neighboring cities could use these facilities but it is not clearly stated.

If you have any questions, please contact Karen Gill at (310) 412-5510.

Sincerely,

Kenneth D. Duke
Public Services Director

City of Lancaster

44933 North Fern Avenue
Lancaster, California 93534
805-723-6000

February 5, 1992

Mr. David Yamahara
Assistant Deputy Director
Los Angeles County Department of Public Works
Waste Management Division
P.O. Box 1460
Alhambra, California 91802-1460

Re: Los Angeles County Source Reduction And Recycling Element
Household Hazardous Waste Element And Negative Declaration

Dear Mr. Yamahara:

The City of Lancaster Public Works Department has reviewed the December, 1991 Preliminary Draft of the Source Reduction and Recycling Element for Unincorporated Los Angeles County. The following comments are offered for the consideration of the County of Los Angeles Department of Public Works.

Section 4.4.2.1.C and 4.4.2.3.E.F.G.: These sections of the County SRRE discuss buy-back recycling centers along with methods for tracking tonnage data. Our suggestion is for the County Public Works Department or the County LEA to implement a no fee permitting system for recycling centers. The permit conditions would include provisions for monthly or annual tonnage data to be submitted to the County. Such a permitting system would put into place an information gathering network for use by the County and the cities in monitoring compliance with AB 939.

Section 4.4.2.3.A.: This section discusses the siting of a Recycling Market Development Zone in unincorporated areas of the County. Our suggestion is to expand that concept to include cooperative efforts with cities to propose region-wide Zones which incorporate communities as well as County areas. Such an approach may increase the chances of gaining approval from the California Integrated Waste Management Board. The County could solicit requests from communities who wish to work with the Los Angeles County Department of Public Works in establishing Recycling Market Development Zones.

Section 4.5.3.8.: This section discusses the use of processed green wastes for use as landfill cover. Our suggestion is to pursue other uses of processed green wastes. For example, the material could be used as mulch in County Parks or as a low maintenance ground cover at other County Facilities.

The City of Lancaster appreciates the opportunity to comment on the Los Angeles County SRRE. On the whole, the Plan appears to be quite comprehensive. If you have further questions about these comments, please contact Mr. Ray Olson, Source Reduction and Recycling Coordinator at (805) 723-6040.

Sincerely,

Jeff L. Long, P.E.
Director of Public Works

JL:RO:nkf

14717 BURIN AVENUE · LAWNDALE · CALIFORNIA 90260 · (213) 973-4321 · 772-4191

February 12, 1992

Mr. David Yamahara
Assistant Deputy Director
Los Angeles County Department of Public Works
Waste Management Division
P.O. Box 1460
Alhambra, CA 91802-1460

Dear Mr. Yamahara:

In accordance with Section 18764 of the Regulations of Planning Guidelines and Procedures for Preparing and Revising County Wide Integrated Waste Management Plans, the City of Lawndale is required to provide written comments to the County concerning the Preliminary Draft Source Reduction and Recycling Element (SRRE), Household Hazardous Waste Element (HHWE), and Draft Negative Declaration for Los Angeles County Unincorporated Areas. The City of Lawndale was in receipt of these documents on January 3, 1992, and is responding within the 45-day time frame required by the regulations.

Since the AB 939 regulations do not give any specific guidance, we reviewed these documents for potential impact on Lawndale residents. The following observations are offered:

1. The City of Lawndale supports the use of green waste as daily landfill cover.

2. The City of Lawndale is against any taxes, and fees that effect Lawndale residents.

3. The City of Lawndale supports the removal of solid waste by rail-haul, in concept. Details must be provided before formal support can be given.

We look forward to receiving a copy of the final SRRE.

Sincerely,

M. Kapanpour

Mike Kapanpour
Public Works Coordinator

CITY OF MALIBU

23805 Stuart Ranch Road, No. 245
Malibu, California 90265
(213) 456-2489

February 18, 1992

David Yamahara, Assistant Deputy Director
Los Angeles County Department of Public Works
Waste Management Division
P.O. Box 1460
Alhambra, CA 91802-1460

Subject: Los Angeles County Source Reduction and Recycling Element (SRRE), Household Hazardous Waste Element (HHWE) & Negative Declaration

Dear Mr. Yamahara:

This letter is in response to the Los Angeles County request for the City of Malibu to review and comment on the SRRE, HHWE and Negative Declaration. City staff has reviewed the documents and compiled the following comments:

1. In the County alternatives of the SRRE, a Material Recovery Facility (MRF) was suggested. There was no mention of the funding aspect of a MRF and, due to the immense cost involved with the design and construction of such a project, the City of Malibu would like to know if they would be required to participate in this cost in order to use the facility in the future.

2. There is also no discussion of regionalization in the Preliminary SRRE. The City would like to know how the County program alternatives are going to interact with their programs.

If you have any questions regarding our comments, please contact Kimberly Collins at (805) 653-6597.

Very truly yours,

CITY OF MALIBU

John F. Knipe
City Engineer

copy: Raymond B. Taylor, City Manager
Kimberly Collins, Recycling Coordinator

KC:ts
06070/3070
FMA187.LTR

COUNTY OF ORANGE

INTEGRATED WASTE MANAGEMENT DEPARTMENT
1200 N. Main Street, Suite 201
Santa Ana, California 92701
(714) 568-4160
FAX (714) 834-0754

FRANK R. BOWERMAN
Director and Chief Engineer

VICKI L. WILSON
Assistant Director

February 28, 1992

David Yamahara
Assistant Deputy Director
Los Angeles County Department of Public Works
Waste Management Division
P.O. Box 1460
Alhambra, CA 91802-1460

Dear Mr. Yamahara:

In response to Los Angeles County Unincorporated Areas Source Reduction and Recycling (SRRE) and Household Hazardous Waste (HHWE) Elements, the Integrated Waste Management Department/Recycling and Materials Recovery Division submit the comments listed below. Although all components were reviewed, comments are provided for components that omitted significant regulatory requirements and would benefit from general constructive comments.

Chapter 4 Recycling Component

Section 4.2 - Objectives

The County indicates that it will consider a multi-regional recycling approach through the use of a MRF with neighboring jurisdictions during the short-term. It is not clear whether neighboring jurisdictions include adjacent cities and counties. Is the County of Orange included in your plans?

Section 4.4 Program Alternatives

The County need to demonstrate how contamination of collected recyclable will be minimized.

Section 4.5 Program Selection

The County needs to indicate measures to be taken if unfavorable markets were to exist

Section 4.7 Monitoring and Evaluation of Programs

The County needs to include monitoring methods, criteria for measuring program effectiveness, and contingency measures that are specific to each alternative.

ORANGE COUNTY RECYCLES

Chapter 7 Education Component

The County needs to demonstrate that each alternative was evaluated, and provide justification for each alternative selected.

Chapter 10 Integration Component

The County needs to provide tasks implementation time lines, indicate the available funding sources and report the short-term costs of implementing the identified programs.

If you should have any questions, please contact Ronald P. Pierre of my staff at (714) 568-4895.

Sincerely,

Ronald P. Pierre
Senior Staff Analysis

APPENDIX H-5

Response to Adjacent Cities' and Counties' Comments

RESPONSE TO COMMENTS FROM CITIES/COUNTIES ON THE COSRRE 6/8/92

CITY OF LANCASTER

Response to Comment #1:

The County agrees that a uniform method is needed for tracking tonnage data. The City's suggestion regarding a County no-fee permitting system for recycling centers as a control mechanism for monitoring compliance with AB 939 is an interesting idea. However, this type of permit system has the potential for inhibiting traditional local land use determination by increasing the regulatory/enforcement powers of the County.

Response to Comment #2:

Section 4.4.2.3.A has been revised to expand the discussion of siting a Recycling Market Development Zone within the County of Los Angeles.

Response to Comment #3:

Green waste as daily landfill cover is one primary waste diversion program scheduled for implementation. Section 4.7.3.4 indicates that if this primary program is unsuccessful in achieving the target waste diversion goals for green waste/yard waste, the County will pursue their County Mulch program where clean loads of green waste can be delivered to designated County facilities. The mulched material can be applied as low maintenance ground cover at County facilities (including parks) and can also be used as fire suppression material on County fire breaks.

CITY OF LAWNDALE

Response to Comment #1: Comment is noted.

Response to Comment #2: Comment is noted.

Response to Comment #3: Comment is noted.

CITY OF INGLEWOOD

Response to Comment #1: Comment is noted.

Response to Comment #2:

Banning the disposal of designated recyclables is not one of the supportive policies selected for implementation. Such a ban would only be implemented if it is deemed necessary to achieve the target waste diversion goals.

Response to Comment #3: Comment is noted.

Response to Comment #4: Comment is noted.

CITY OF MALIBU

Response to Comment #1:

Due to the immense cost involved in siting, designing, constructing, operating and maintaining a materials recovery facility, it is possible that the City of Malibu, as well as other jurisdictions, may be required to participate in the cost of the facility in order to use the facility. However, the specific details of the future facilities and related costs are not known at this time.

Response to Comment #2: Comment is noted.

CITY OF CALABASAS

Response to Comment #1:

Due to the immense cost involved in siting, designing, constructing, operating and maintaining a materials recovery facility, it is possible that the City of Calabasas, as well as other jurisdictions, may be required to participate in the cost of the facility in order to use the facility. However, the specific details of the future facilities and related costs are not known at this time.

Response to Comment #2: Comment is noted.

COUNTY OF ORANGE

Response to Comment #1:

Section 4.5.4(A) has been modified to consider the establishment of a region-wide market development zone. The details of this zone are not currently known.

Response to Comment #2: Comment is noted.

Response to Comment #3:

Section 4.7.3.5 identifies contingency measures that could be implemented if unfavorable markets exist.

Response to Comment #4:

Sections 4.5.2, 4.5.3, and Section 4.7 et seq. reference and describe the monitoring methods, criteria for measuring program effectiveness and contingency measures for the selected alternatives.

Response to Comment #5: Comment is noted.

Response to Comment #6: Comment is noted.

JT/AW:jg
jt1/citcom

APPENDIX H-6

Comments Made by the Public at the Public Information Meetings for the Preliminary Draft SRRE

Public Comments Received on the County Source Reduction and Recycling Element, Household Hazardous Waste Element, and Negative Declaration		
Date/Meeting	Resident/City	Comments
01/22/92	Warren Be Miller Elizabeth Lake	This was an illegal meeting because there was not enough prior notice and documents were received too late for comment. Will solid waste fee be raised or lowered? Is there a sunset clause? Why do yard waste greens need to be recycled? What about raising tipping fees, rather than charging the solid waste fee? Urban and rural areas should start their own mulching programs. What is anticipated reduction on wastes going to landfills? What markets exist for recyclables? How much sludge is going through Hyperion, and how will it be dealt with? What is the cost of the education program? How will it be advertised? Kids can't be taught to read or write, how can they be taught to recycle? Should have minimum lot size for unincorporated County areas. What's the life span for Palmdale Landfill?
01/23/92	Gene Coffman	What programs does the document propose? What would the County like the public to do?
01/30/92	Diane Jardine Marina del Rey	None Provided

gswp3/APPNDX.16

Public Comments Received on the County Source Reduction and Recycling Element, Household Hazardous Waste Element, and Negative Declaration (cont.)		
Date/Meeting	Resident/City	Comments
02/04/92	Ruth Wash Doris Miller Fred Miller Whittier	Are any more buy-back centers planned? Trash bill has increased. What will stop the increases? What is the limit to the increase? Backyard Composting: does everyone need a shredder? Source Reduction: business (manufacturers) have to do their part. Is County prepared to deal with recycling markets (getting business to do their part)? Is there a place where people can go to take their green waste? Will haulers come and pick it up? Will outreach include television advertising? Will there be smaller HHW roundups around the country? Tipping fee will be the source of long-term financing? Are you doing any drug abuse testing of workers handling hazardous waste at those roundups? Where can paper be recycled?
02/05/92	Lillian Avery Carol Maucscu Nancy Abbott Tina Herzog, Supv. Gloria Molina's Office Ray Ramirez Wil Baca	How will greenwaste be handled by the plan? How will the program be financed? We have curbside recycling in Hacienda Heights and the haulers charge for this service. Why is there a charge?

gswp3/APPNDX.17

SOURCE REDUCTION, RECYCLING, AND
HOUSEHOLD HAZARDOUS WASTES ELEMENTS

PUBLIC HEARINGS, WITHOUT COMMENTS

At the following public meeting events, there was no attendance from the public nor any comments rendered.

DATE	LOCATION
1. Tuesday, January 21, 1992	Stimson Park 1545 South Stimson Avenue Hacienda Heights
2. Tuesday, January 28, 1992	F. D. Roosevelt Park 7000 Graham Avenue Los Angeles
3. Wednesday, January 29, 1992	Pine Tree Elementary School 29156 Lotus Garden Canyon Country
4. Monday, February 3, 1992	Griffith Jr. High School 4765 East 4th Street Los Angeles
5. Thursday, February 6, 1992	Topanga School 141 North Topanga Boulevard Topanga

AW:jg
ALLEN/MEETING

Comments Received
at Public Information Meeting
of January 22, 1992

The following are questions/comments addressed to staff:

This was an illegal meeting because there was not enough prior notice and documents were received too late for comment.

Will solid waste fee be raised or lowered? Is there a sunset clause?

Why do yard waste greens need to be recycled?

Urban and rural areas should start their own mulching programs.

What about raising tipping fees, rather than charging the solid waste fee?

What is anticipated reduction on wastes going to landfills?

What markets exist for recyclables?

How much sludge through Hyperion, and how will it be dealt with?

What is the cost of the eduction program?

How will it be advertised?

Kids can't be taught to read or write, how can they be taught to recycle?

Should have minimum lot size for unincorporated County areas.

What's the life span for Palmdale Landfill?

gswp/GS42

SOURCE REDUCTION, RECYCLING, AND HOUSEHOLD HAZARDOUS WASTES ELEMENTS
PUBLIC HEARING

Location: Antelope Valley Tamarisk School/ 1843 E. Ave Q-5 Room 14 Palmdale, CA Date: 1-22-92

Please Print

Name	Address	Phone #
1. Warren B. Miller	42664 Gumtree Dr. Elizabeth Lake, CA 93532	Lakes Town Council
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		

Comments Received
at Public Information Meeting
of January 23, 1992

The following questions were addressed to staff:

What programs does the document propose?

What would the County like the public to do?

vc3/ATTEND

Comments Received
at Public Information Meeting
of February 4, 1992

The following questions and answers were discussed:

1. Q. Are any more buy back centers planned?
   A. Investigating feasibility.

2. Q. Trash bill has increased. What will stop the increases?

3. Q. What is the limit to the increase?
   A. Free enterprise system will keep the price of the curbside program competitive.

4. Q. Backyard Composting, does everyone need a shredder?
   A. People can use clippers or other tools which they may already have to process yard waste to be composted.

5. Q. Source Reduction - Businesses (manufacturers) have to do their part.
   A. County is trying to work with businesses to find solutions to packaging problems.

6. Q. Is County prepared to deal with recycling markets (getting business to do their part)?
   A. Coca-Cola, Plastics, Newspaper examples cited. Again, County working cooperatively with businesses to find solutions.

   County is expanding their staff to meet the challenge of meeting our State mandated goals.

7. Q. Is there a place where people can go to take their green waste? Will haulers come and pick it up?
   A. Benefit to disposal companies to collect green waste (Athens Disposal-example) due to lower tipping fee.

8. Q. Will outreach include television advertising?
   A. Local access cable.

9. Concern over the long waiting time at the large round ups.
   Q. Will there be smaller HHW roundups around the country?
   A. There are already five roundups scheduled for this year. The roundups are extremely expensive.

10. Q. Tipping fee will be the source of long-term financing?
    A. Need to monitor to determine if financing is adequate.

11. Q. Are you doing any drug abuse testing of workers handling hazardous waste at those roundups?
    A. That is up to the discretion of private companies like Greenfield Environmental that the County contracts with.

12. Q. Where can paper be recycled?
    A. Call recycling hotline toll free - 1-800 552-5218.

JT:vc
vcwp1/MEETING

SOURCE REDUCTION, RECYCLING, AND HOUSEHOLD HAZARDOUS WASTES ELEMENTS
PUBLIC HEARING

Location: SORENSON PARK
WHITTIER

Date: TUESDAY February 4, 1992

Please Print

Name	Address	Phone #
1. Ruth Wash	618 S. Arciero Dr. Whittier	
2. Lois Miller	802 S Lively Ave Whittier	
3. Fred miller	802 S Dorsey ave whittier	818 336-3304
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		

Comments Received
at Public Information Meeting
of February 5, 1992

The following questions and answers were discussed:

Q: How will green waste be handled by the plan?

A: The SRRE proposes to participate in the CSD green waste cover program, to support the development of private sector composting facilities, and promote the County Backyard Composting Program. Collection of green waste will be done through the private waste haulers by means of the County's recycling ordinance.

Q: How will the programs be financed?

A: Programs will be financed through the County's Solid Waste Generation Service Charge (SWGSC) of $3.51 per Waste Generation Unit and through the Solid Waste Management Fund (SWMF) of $0.86 per ton of waste disposed charged at each landfill. The SWGSC will be used for programs in the unincorporated areas of the County only. The $0.86 per ton tipping fees will be used for County-wide programs such as the Household Hazardous Waste Roundups and the Countywide Integrated Waste Management Plan.

Q. We have curbside recycling in Hacienda Heights and the haulers charge for this service. Why is there a charge?

A. The Curbside Recycling Program is implemented through the waste haulers in your area. To provide this service they must purchase the bins and provide trucks and personnel to collect and process the recyclable. The revenue received from the recyclables is not sufficient to cover the costs incurred in the collection.

We are working with the State to developed markets for recyclabels and improve the resale value of recyclables.

MA:ep
MARTINS\COMMENTS.1

SOURCE REDUCTION, RECYCLING, AND HOUSEHOLD HAZARDOUS WASTES ELEMENTS
PUBLIC HEARING

Location: Whittier Sanitation District Date: 2/5/92

Please Print

Name	Address	Phone #
1. LILLIAN AVERY	1015 HEDGEPATH AVE HAC. HGHTS. CA 91745	818 968 2828
2. CAROL MANCERI	1435-164 EAGLE PARK RD HAC HTS 91745	818. 965-8578
3. NANCY ABBOTT	14402 CRYSTAL LANTERN HAC. HTS	818-330-5756
4. Tina Herzog rep. Supervisor Molina	3219 Tyler Ave ELMonte Ca 91731	818) 350 4500
5. RAY RAMIREZ	2535 COMMERCE WAY, COMMERCE	CA. (213) 722-4805
6. Wil Beck	3439 Cacao Ct W.C.	818-330 9659
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		

PUBLIC NOTICE

The Los Angeles County Department of Public Works is holding a series of public information meetings to receive comments on the Los Angeles County Preliminary Draft Source Reduction and Recycling Element, Preliminary Draft Household Hazardous Waste Element, and Draft Negative Declaration.

The Source Reduction and Recycling Element discusses the programs that will be implemented by the County to reduce, reuse, or recycle as much material as possible that is currently being sent to landfills. The Household Hazardous Waste Element discusses the programs that will be implemented to provide proper collection and disposal of household hazardous waste. The Negative Declaration document discusses the impacts the proposed programs will have on the environment.

The meetings will be held from 7:30 p.m. to 9:00 p.m. at the places and dates indicated below:

January 21, 1992	Stimson Park, 1545 South Stimson Avenue, Hacienda Heights
January 22, 1992	Tamarisk Elementary School, 1843 E. Ave. Q-5, Palmdale
January 23, 1992	Loma Alta Park, 3330 North Lincoln Ave., Altadena
January 28, 1992	F. D. Roosevelt Park, 7600 Graham Avenue, Los Angeles
January 29, 1992	Pine Tree Elementary School, 29156 Lotus Garden, Canyon Country
January 30, 1992	Burton Chase Park, 13650 Mindanao Way, Marina Del Rey
February 3, 1992	Griffith Jr. High School, 4765 East 4th Street, Los Angeles
February 4, 1992	Sorensen Park, 11419 Rosehedge Drive, Whittier
February 5, 1992	Sanitation Districts Offices, 1955 Workman Mill Rd., Whittier
February 6, 1992	Topanga School, 141 North Topanga Boulevard, Topanga

Copies of these documents are available for review at the following locations:

Los Angeles County Department of Public Works
Waste Management Division
900 South Fremont Avenue, Alhambra
Monday through Thursday from 7:00 a.m. to 5:30 p.m.
and
All Los Angeles County Public Libraries
Check the telephone listings for the County Library nearest you.

If you have any questions, please call the Los Angeles County Department of Public Works, Recycling Hotline at 1-800-552-5218, Monday through Thursday, 7:00 a.m. to 5:30 p.m.

Si no entiende esta noticia o necesita mas informacion favor llame a este numero 1-800-552-5218, de lunes a jueves de 7:00 a.m. - 5:30 p.m.

PUBLIC FORUM ON SOURCE REDUCTION AND RECYCLING

CALIFORNIA INTEGRATED WASTE MANAGEMENT ACT OF 1989

FACT SHEET

The California Integrated Waste Management Act of 1989, more commonly known as Assembly Bill 939, is major legislation which became law January 1, 1990. The Act establishes priorities for the management of solid waste produced through source reduction, recycling, and composting. Each city is required to prepare a plan and to implement a program to divert waste going to landfills by 25 percent by 1995 and 50 percent reduction by the year 2000. Each county is required to do the same plan preparation and program implementation for its unincorporated areas. State law also requires each city and county to develop and implement a program for proper disposal of hazardous waste produced by households. Under the Act, the State may impose a penalty of up to $10,000 per day on any city or county that fails to meet stipulated deadlines as outlined by the program and its implementation schedule.

In order to accomplish this mandate, each city and county plan must also address the following:

- Developing and implementing programs to reduce generation of waste at the source;
- Recycling waste materials and promoting programs for use of recyclable materials;
- Composting yard waste in order to save diminishing landfill capacity;
- Developing and implementing programs to increase public awareness on waste management issues and the need to participate in recycling, composting, and source reduction; and
- Providing a means for disposal of waste that remains after recycling, composting, and source reduction programs have been implemented.

In summary, the purpose of the Act, is:

- To reduce, reuse, and recycle solid waste generated in the counties and cities to the maximum extent feasible;
- To conserve water, energy, and natural resources;
- To protect air and water quality;
- To improve regulations on operation of solid waste landfills; and
- To ensure that all solid waste landfills are environmentally sound.

DMS:jk
jk9/PF

FORO PUBLICO SOBRE LA REDUCCION DE ORIGEN Y RECICLAJE

DECRETO INTEGRADO DE CONTROL DE DESPERDICIO DEL ESTADO DE

CALIFORNIA DE 1989

HOJA DE INFORMACION

El Decreto Integrado de Control de Desperdicio del Estado de California de 1989, conocido mejor como el Proyecto de Ley de la Asamblea No. 939, es un legislato de gran importancia que se convirtio en ley el 1° de Enero de 1990. El decreto establece prioridades para el control de desperdicio solido al exigir a cada condado y ciudad en el Estado a desviar el desperdicio producido por los metodos de reduccion de origen, reciclaje y abono. Se requiere de cada ciudad preparar un plan e implementar un programa para desviar el desperdicio que entra en los vertederos por un 25 por ciento para 1995 y una reduccion de 50 por ciento para el ano 2000. Se requiere de cada condado preparar el plan e implementar el programa para todas las areas no incorporadas. La ley Estatal tambien exige a cada ciudad y condado a desarrollar e implementar un programa para poder disponer del desperdicio peligroso que se produce domesticamente. Segun el Decreto, el Estado puede imponer una multa de $10,000 por dia a cada ciudad o condado que no cumpla con los plazos estipulados segun el esquema del programa y su horario de implementacion.

Para poder cumplir con este mandato, el plan de cada ciudad y condado tambien debera cumplir con lo siguiente:

- Desarrollar e implementar programas para reducir la generacion de desperdicio en su origen;
- Reciclaje de desperdicio y la promocion de programas para el uso de materiales reciclables;
- Abono de desperdicio de patio para preservar la capacidad de vertederos;
- Desarrollar e implementar programas para hacer conciente al publico sobre los puntos de control de desperdicio y la necesidad de participar en el reciclaje, abono, y la reduccion de origen; y
- Proporcionar el medio para disponer del desperdicio que permanece despues del implemento de programas de reciclaje, abono, y reduccion de origen.

En breve, el proposito del Decreto es:

- Reducir, reusar y reciclar el desperdicio solido generado en los condados y ciudades a la maxima extencion factible;
- Conservar agua, energia, y recursos naturales;
- Proteger la calidad de aire y agua;
- Mejorar las regulaciones sobre la funcion de vertederos de desperdicios solidos; y
- Asegurar que todos los vertederos de desperdicio solido sean ambientalmente seguros.

RD:rd
WM-2/(sf)AB939

APPENDIX H-7

Review and Comments by the
Los Angeles County
Solid Waste Management Committee/
Integrated Waste Management Task Force

A G E N D A

PLAN REVIEW SUBCOMMITTEE

Los Angeles County Solid Waste Management Committee/
Integrated Waste Management Task Force

March 30, 1992

Los Angeles County Department of Public Works
Conference Room "C"
900 South Fremont Avenue, Alhambra, California

Important: Meeting to Start Promptly at 1:00 p.m.

I. Call to Order

II. Approval of Minutes of March 16, 1992

III. Plan Review of the Following City:

A. Preliminary Draft SR&RE for Los Angeles County

B. Final Draft SR&RE for the City of Lakewood

IV. Open Discussion

V. Next Meeting Date Scheduled for April 13, 1992, 1:00 p.m.

VI. Adjournment

For additional information, please contact Mr. David M. Smith at (818) 458-3561.

gswp2/PRS33092

PLAN REVIEW SUBCOMMITTEE

Los Angeles County Solid Waste Management Committee/
Integrated Waste Management Task Force

Minutes of March 30, 1992

Los Angeles County Department of Public Works
900 South Fremont Avenue
Alhambra, California

SUBCOMMITTEE MEMBERS PRESENT:

Al Avoian, Chair
Clarence Gieck
Chuck Conn
Tom Jefferson
Mike Miller
Jeff Kolin

SUBCOMMITTEE MEMBERS NOT PRESENT:

Joan Edwards
Robert Theobald
Steve Maguin
Jim Gregg

SUBCOMMITTEE MEMBERS REPRESENTED BY OTHERS:

Ron Deaton, represented by Ted Rogers

OTHERS PRESENT:

Ginger Bremberg, Mayor, City of Glendale, and Vice Chair of the Task Force
Ledra Sanchez, City of Gardena
Mike Mohajer, Los Angeles County Department of Public Works
David M. Smith, Los Angeles County Department of Public Works
Michael J. Bohlander, Los Angeles County Department of Public Works

I. CALL TO ORDER

The meeting was called to order at 1:00 p.m.

II. APPROVAL OF MINUTES

The March 16, 1992 minutes were approved as written.

Mike Mohajer introduced Jeff Kolin as a new member of the Subcommittee, replacing John Medina, City of Santa Clarita.

III. PLAN REVIEW OF THE FOLLOWING CITIES SR&REs:

A. County of Los Angeles (Draft SR&RE)

Mr. Smith referred to the review sheet for the County of Los Angeles (Attachment A).

Clarence Gieck stated that a very small portion of the waste stream is committed to composting.

Mike Miller referred to the Composting program and asked if there would be a city facility or a regional facility.

Michael J. Bohlander stated that the Department will be working with the County Sanitation Districts in establishing regional facilities at landfills. (The review sheet should be changed to reflect this correction.)

Chuck Conn asked if the County would implement a green waste cover program. Dave Smith stated that that item was omitted and should be included under the Recycling program.

Clarence Gieck asked staff why there were no comments regarding ash from the County. Mike Bohlander stated that no unincorporated area waste is being exported to waste-to-energy facilities.

Al Avoian asked staff what attributes to the five percent increase in the Other Wastes program. Mike Bohlander stated that the projection results from further implementation of the programs.

Mr. Avoian asked staff if the County Sanitation Districts were responsible for implementing single-family curbside collection programs. Mike Bohlander stated that the

review sheet should be changed to indicate curbside programs are currently in existence and are planned for the medium-term as well.

Mike Mohajer reported that the County Source Reduction and Recycling Element was prepared by a combination of several city group consultants and staff.

Mr. Mohajer stated that under the Other Wastes program, the County is planning to use rubberized asphalt for surface streets in the year 2000.

Mr. Avoian asked staff if the County is doing anything to encourage zoning incentives within the County for establishment of waste transformation or MRFs. Mike Bohlander stated that at this time, the County is looking into the feasibility of establishing a recycling market development zone in unincorporated areas. Mr. Avoian stated that the County should be the lead agency to promote the establishment of zoning incentives.

Mr. Avoian asked staff if a Public Awareness Committee would be implemented. Mike Mohajer stated that the County has implemented a public awareness program. Mr. Mohajer stated that Woody Woodpecker has been established as the County mascot; a recycling video tape has been developed in English and Spanish, which is being provided to all private and public schools in Los Angeles County; and staff is continuously attending workshops and open houses to promote recycling and composting.

A motion was introduced and approved to accept the County of Los Angeles' SR&RE, subject to the comments of the Subcommittee.

B. <u>City of Lakewood</u> (Final SR&RE)

Mr. Smith referred to the review sheet for the City of Lakewood (Attachment B).

Mr. Smith stated that the City of Lakewood does support the Los Angeles County Action Plan, but has not yet submitted an official copy of the City resolution indicating its support of the Action Plan.

Under the Funding Component, the City has not addressed private/industry costs for recycling programs.

Under the Other Waste program, there is high diversion estimated due to proposed use of ash recycling at Puente Hills Landfill for road subbase.

Under Goals and Objectives, Ginger Bremberg stated that there is an impact on neighboring jurisdictions. Dave Smith stated that the review sheet should be changed to indicate "yes".

Under the Recycling program, the review sheet should be corrected to indicate single-family curbside programs for short- and medium-terms.

Under the Composting Component, the review sheet should be corrected to indicate that there are no facilities proposed.

A motion was introduced and approved to accept the City of Lakewood's Final SR&RE, subject to the comments of the Subcommittee.

IV. NEXT MEETING DATE

Next meeting is tentatively scheduled for April 13, 1992, at 1:00 p.m.

V. ADJOURNMENT

Meeting adjourned at 2:02 p.m.

gswp2/PRS33092.1

Attach.

LOS ANGELES CO' 'Y INTEGRATED WASTE MANAGE NT TASK FORCE
PLAN REVIEW SUBCOMMITTEE
SOURCE REDUCTION AND RECYCLING ELEMENT REVIEW
COUNTY OF LOS ANGELES (PRELIMINARY)

GOALS & OBJECTIVES	Y	N	COMMENTS
- Realistic?	X		
- Impact on neighboring jurisdiction?	X		
- Promote cooperative management?	X		The Chapter descriptions in the Executive Summary are too brief.
WASTE CHARACTERIZATION			
- Is methodology consistent with requirements?	X		
- Data presented in usable format?	X		
- Are disposal/diversion quantities reasonable?	X		
SOURCE REDUCTION			
- Are regional concerns considered?	X		
- Are diversions tracked?	X		
RECYCLING			How is the proposed regional MRF to be financed? Are cities who plan to use the proposed Regional MRF going to be required to participate in the cost?
- Are regional concerns considered?	X		
- Are diversions tracked?	X		
- Are facilities proposed?	X		
COMPOSTING			The County will provide funding for certain collection, pre-processing and composting activities. The Component incorrectly indicates that due to strong demand, the availability of potential markets is good.
- Are regional concerns considered?	X		
- Are diversions tracked?	X		
- Are facilities proposed?		X	
DISPOSAL CAPACITY			The Board adopted the Solid Waste Management Action Plan (Action Plan) on April 5, 1988. The County does have an export agreement for utilizing Scholl Canyon Landfill, however, does not have an agreement for landfills located in other jurisdictions.
- Are existing facilities identified correctly?	X		
- Are 15-year needs identified?	X		
- Agreements for exporting to other jurisdiction?		X	
- Are strategies identified for 15-year disposal needs?	X		
FUNDING			
- Are contingencies identified?	X		
- Are funding sources selected?	X		
CEQA			
- Are cumulative impacts identified?	X		
- Are mitigation measures identified?	X		

JKWP1/LOSANGELES

PROGRAMS	Implementation		Estimated Diversion %			Realistic	
	Short	Medium	1990	1995	2000	Y	N
			.3	2.7	4.3	X	
SOURCE REDUCTION							
Rate Modifications							
1) Disposal Fee Modification	____	____					
2) Quantity Based User Fee	____	____					
Economic Incentives							
3) Loans, Grants, Refunds	____	____					
4) Deposits, Refunds, Rebates	____	____					
5) Reduce Business License Fee	____	____					
Technical Assistance							
6) Waste Evaluation	X	X					
7) Backyard Composting	X	X					
8) Education/Awareness	X	X					
9) Public Recognition	____	____					
10) Non-Procurement	X	X					
Regulatory							
11) Procurement Ordinances	X	X					
12) Zoning Incentives	____	____					
13) Product Bans	____	____					
RECYCLING			4.2	18.6	35.2	X	
Material Separation							
1) Single-Family Curbside	X	X					
2) Multi-Family	X	X					
3) Commercial/Industrial	X	X					
4) Drop-Off Centers	X	X					
5) Buy-Back Centers	X	X					
6) Total Waste MRF	X	X					
7) Transformation SERRF	____	____					
8) Green Waste Cover Project	X	X					
Regulatory							
9) Zoning	____	____					
10) Building Code	____	____					
Improve Markets							
11) Procurement Ordinances							
COMPOSTING			0	1.0	3.0	X	
1) Regional Facility	X	X					
2) City Facility							
OTHER WASTES			0.2	2.7	7.8	X	
1) Tires	X	X					
2) Demolition Wastes	X	X					
3) White Goods	X	X					
4) Ash							
TOTAL ESTIMATED DIVERSION %			4.7	25.0	50.3	X	

STR:vc
jkwp1/LOSANG1
revised 3/30/92

APPENDIX H-8
Response to comments from the Los Angeles
County Integrated Waste Management Task Force

Response to Comments from the Los Angeles County Integrated Waste Management Task Force, Plan Review Subcommittee.

Comment #1: Goals Objectives

The Chapter descriptions in the Executive Summary are too brief.

Response:

Comment is noted. Although the Executive Summary is not required by regulation as part of the SRRE, it will be revised to more adequately describe and assess the effectiveness of the particular programs.

Comment #2: Recycling

How is the proposed regional MRF to be financed? Are cities who plan to use the proposed Regional MRF going to be required to participate in the cost?

Response:

The County relies on the private sector to develop Material Recovery Facilities/Transfer Stations. At this time, the specific mechanism and design of such operations are not known.

Additionally, the county will encourage and/or require the development of material recovery operations and other incentive programs at solid waste facilities that are new or which propose expansions and/or revisions to their existing solid waste facility operations.

Comment #3: Composting

The County will provide funding for certain collection, preprocessing and composting activities. The Component incorrectly indicates that due to strong demand, the availability of potential markets is good.

Response:

Financial incentives are aimed to be implemented as a measure to increase participation in composting activities. The alternative actually consists of incentive rates and fines for non-compliance.

No further response is necessary.

Comment #4: Disposal Capacity

The Board adopted the Solid Waste Management Action Plan (Action Plan) on April 5, 1988. The County does have an export agreement for utilizing Scholl Canyon Landfill, however, does not have an agreement for landfills located in other jurisdictions.

Response:

Comment is noted. There is adequate disposal capacity and resources within the County unincorporated areas to meet the needs of waste generated in these areas throughout the short-term and medium-term planning periods.

Comment #5: Plan Review Subcommittee

See minutes of committee meeting of March 30, 1992 (Appendix H-7) for comments and responses. No further comment is necessary.

MA:ep
MARTINS\COMMENTS

APPENDIX I

PROOF OF DISTRIBUTION AND PUBLICATION OF PRELIMINARY DRAFT SRRE AND HHWE

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (818) 458-5100

THOMAS A. TIDEMANSON, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O.BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

January 2, 1992

IN REPLY PLEASE REFER TO FILE: WM-2

Dear

LOS ANGELES COUNTY SOURCE REDUCTION AND RECYCLING ELEMENT HOUSEHOLD HAZARDOUS WASTE ELEMENT AND NEGATIVE DECLARATION

Enclosed for your review are the preliminary drafts of the Source Reduction and Recycling Element (SRRE), Household Hazardous Waste Element (HHWE), and Draft Negative Declaration for the Los Angeles County Unincorporated Areas. These documents have been prepared in accordance with the requirements of the California Integrated Waste Management Act of 1989 (Assembly Bill 939) and the California Integrated Waste Management Board regulations.

The California Code of Regulations, Title 14, Section 18764, provides for a 45-day review period, and, therefore, comments on these documents will be accepted through February 15, 1992.

Your written comments should be forwarded to:

Mr. David Yamahara
Assistant Deputy Director
Los Angeles County Department of Public Works
Waste Management Division
P.O. Box 1460
Alhambra, CA 91802-1460

If you should have any questions, please contact Mr. David Smith of my staff at (818) 458-3561.

Very truly yours,

James A. Noyd

T. A. TIDEMANSON
Director of Public Works

DMS:lz
MAYORS\SRRE1291

Enc.

192 ADDRESSES OF AGENCIES

I. 90 County Libraries

Ms. Sue Cowen
Public Information Officer
Los Angeles County Public Library
7400 East Imperial Highway
Downey, CA 90241
(310) 940-8458
One address for all SRRE copies
6 Regional Libraries included

1. Alondra Library
   11949 E. Alondra Blvd.
   Norwalk, CA 90650

2. Artesia Library
   18722 S. Clarkdale Avenue
   Artesia, CA 90701

3. Avalon Library
   215 Sumner Avenue
   P.O. Box 585
   Avalon, CA 90704

4. Balwin Park Library
   4181 Baldwin Park Blvd.
   Baldwin Park, CA 91706

5. Bell Library
   4411 E. Gage Avenue
   Bell, CA 90201

6. Bell Gardens Library
   7110 S. Garfield Avenue
   Bell Gardens, CA 90201

7. A. C. Bilbrew Library
   150 E. El Segundo Blvd.
   Los Angeles, CA 90061

8. Clifton M. Brankensiek Library
   9945 E. Flower Street
   Bellflower, CA 90706

9. Canyon Country Library
   18536 Soledad Canyon Road
   Canyon Country, CA 91350

10. Carson Regional Library
151 E. Carson Street
Carson, CA 90745

11. Charter Oak Library
20540 "K" E. Arrow Highway
Covina, CA 91724

12. City Terrace Library
4025 E. City Terrace Drive
Los Angeles, CA 90063

13. Claremont Library
208 N. Harvard
Claremont, CA 91711

14. Compton Library
240 W. Compton Blvd.
Compton, CA 90220

15. Cudahy Library
5218 Santa Ana Street
Cudahy, CA 90201

16. Culver City Library
4975 Overland Avenue
Culver City, CA 90230

17. Del Mar Library
3132 N. Del Mar Avenue
Rosemead, CA 91770

18. Diamond Bar Library
1061 S. Grand
Diamond Bar, CA 91765

19. Dominguez Library
2719 E. Carson Street
Long Beach, CA 90810

20. Duarte Library
1301 Buena Vista Avenue
Duarte, CA 91010

21. East Compton Library
4205 E. Compton Blvd.
Rancho East Dominguez, CA 90221

22. East Los Angeles Library
4801 E. 3rd Street
Los Angeles, CA 90022

23. Edgewood Library
1435 W. Puente Avenue
West Covina, CA 91790

24. El Camino Real Library
4264 E. Whittier Blvd.
Los Angeles, CA 90023

25. El Monte Library
3224 N. Tyler Avenue
El Monte, CA 91731

26. Florence Library
1610 E. Florence Avenue
Los Angeles, CA 90001

27. Gardena Library
1731 W. Gardena Blvd.
Gardena, CA 90247

28. Graham Library
1900 E. Firestone Blvd.
Los Angeles, CA 90001

29. Hacienda Heights Library
18010 La Monde Street
Hacienda Heights, CA 91745

30. Hawaiian Gardens Library
12134 Tibury Street
Hawaiian Gardens, CA 90716

31. Hawthorne Library
12700 S. Grevillea Avenue
Hawthorne, CA 90250

32. Hermosa Beach Library
550 Pier Avenue
Hermosa Beach, CA 90254

33. Chet Holifield Library
1060 S. Greenwood Avenue
Montebello, CA 90640

34. Hollydale Library
12000 S. Garfield Avenue
South Gate, CA 90280

35. Huntington Park Library
6518 Miles Avenue
Huntington Park, CA 90255

36. Angelo M. Iacobini Library
4990 Clark Avenue
Lakewood, CA 90712

37. La Canada Flintridge Library
4545 N. Oakwood Avenue
La Canada Flintridge, CA 91011

38. La Crescenta Library
4521 La Crescenta Avenue
La Crescenta, CA 91214

39. La Mirada Library
13800 La Mirada Blvd.
La Mirada, CA 90638

40. Lancaster Regional Library
1150 W. Avenue J
Lancaster, CA 93534

41. La Puente Library
15920 E. Central Avenue
La Puente, CA 91744

42. Las Virgenes Library
29130 W. Roadside Drive
Agooura Hills, CA 91301

43. La Verne Library
3640 D. Street
La Verne, CA 91750

44. Lawndale Library
14615 Burin Avenue
Laondale, CA 90260

45. Lennox Library
4359 Lennox Blvd.
Lennox, CA 90304

46. Littlerock Library
8135 Pearblossom Highway
P. O. Box 218
Littlerock, CA 93543

47. Live Oak Library
4153-55 East Live Oak Avenue
Arcadia, CA 91006

48. Los Nietos Library
11644 E. Slauson Avenue
Whittier, CA 90606

49. Lomita Library
24200 Narbonne Avenue
Lomita, CA 90717

50. Lynwood Library
11320 Bullis Road
Lynwood, CA 90262

51. Malibu Library
23519 W. Civic Center Way
Malibu, CA 90265

52. Manhattan Beach Library
1320 Highland Avenue
Manhattan Beach, CA 90266

53. Manhattan Heights Library
1560 Manhattan Beach Blvd.
Manhattan Beach, CA 90266

54. Marina Del Rey Library
4533 Admiralty Way
Marina Del Rey, CA 90291

55. Maywood Library
4323 East Slauson Avenue
Maywood, CA 90270

56. Montebello Regional Library
1550 West Beverly Blvd.
Montebello, CA 90640

57. Newhall Library
22704 West Ninth Street
Newhall, CA 91321

58. Norwalk Library
12350 Imperial Highway
Norwalk, CA 90650

59. Norwood Library
4550 N. Peck Road
El Monte, CA 91732

60. George Nye Jr. Library
6600 Del Amo Blvd.
Lakewood, CA 90713

61. Paramount Library
16254 Colorado Avenue
Paramount, CA 90723

62. Pico Rivera Library
9001 Mines Avenue
Pico Rivera, CA 90660

63. Point Dume Library
6955 Fernhill Drive
Malibu, Ca 90265

64. Anthony Quinn Library
3965 Brooklyn Avenue
Los Angeles, CA 90063

65. Quartz Hill Library
42018 North 50th Street West
Quartz Hill, CA 93534

66. Rivera Library
7828 South Serapis Avenue
Pico Rivera, CA 90660

67. Rosemead Library
8800 Valley Blvd.
Rosemead, CA 91770

68. Rowland Heights Library
1850 Nogales
Rowland Heights, CA 91748

69. San Dimas Library
145 North Walnut Avenue
San Dimas, CA 91773

70. San Fernando Library
1050 Library Street
San Fernando, CA 91340

71. San Gabriel Library
500 South Del Mar Avenue
San Gabriel, CA 91776

72. Masao W. Satow Library
14433 South Crenshaw Blvd.
Gardena, CA 90249

73. Sorensen Library
11405 East Rosehedge Drive
Whittier, CA 90606

74. South El Monte Library
1430 N. Central Avenue
South El Monte, CA 91733

75. South Whittier Library
14433 Leffingwell Road
Whittier, CA 90604

76. Sunkist Library
840 North Puente Avenue
La Puente, CA 91746

77. Sunnyslope Library
346 South Rosemead Blvd.
Pasadena, CA 91107

78. Temple City Library
5939 Golden West Avenue
Temple City, CA 91780

79. Valencia Library
23743 West Valencia Blvd.
Valencia, CA 91355

80. Victoria Park Library
17906 South Avalon Blvd.
Carson, CA 90746

81. View Park Library
3854 West 54th Street
Los Angeles, CA 90043

82. Villa Carson Library
23317 South Avalon Blvd.
Carson, CA 90745

83. Walnut Library
21155 South La Puente Road
Walnut, CA 91789

84. Leland R. Weaver Library
4035 Tweedy Blvd.
South Gate, CA 90280

85. Weingart Library
12301 East 207th Street
Lakewood, CA 90715

86. West Covina Regional Library
1601 West Covina Parkway
West Covina, CA 91790

87. West Hollywood Library
715 N. San Vicente Blvd.
West Hollywood, CA 90069

88. Willowbrook Library
11838 Wilmington Avenue
Compton, CA 90222

89. Wiseburn Library
5335 West 135th Street
Hawthorne, CA 90250

90. Woodcrest Library
1340 West 106th Street
Los Angeles, Ca 90044

TB:mm
mmwp1/MAIL

192 ADDRESSES OF AGENCIES

II. 88 Cities' City Administrator/Manager

1. Mr. David Carmany, CM
City of Agoura Hills
30101 Agoura Road, Suite 102
Agoura Hills, CA 91301

2. Mr. Kevin J. Murphy, CM
City of Alhambra
111 South First Street
Alhambra, CA 91801

3. Mr. George J. Watts, CM
City of Arcadia
240 West Huntington Drive
Arcadia, CA 91006-0060

4. Mr. Paul J. Philips, CM
City of Artesia
18747 Clarkdale Avenue
Artesia, CA 90701

5. Mr. Charles Prince, CM
City of Avalon
209 Metropole Avenue
Avalon, CA 90704

6. Mr. Henry Garcia, Acting CA
City of Azusa
213 East Foothill Boulevard
Azusa, CA 91702

7. Mr. Donald E. Penman, CM
City of Balwin Park
14403 East Pacific Avenue
Baldwin Park, 91706

8. Mr. John M. Bramble, CA
City of Bell
6330 Pine Avenue
Bell, CA 90201

9. Mr. Claude L. Booker, CM
City of Bell Gardens
7100 South Garfield Avenue
Bell Gardens, CA 90201

10. Mr. Jack A. Simpson, CA
City of Bellflower
16600 Civic Center Drive
Bellflower, CA 90706-5494

11. Mr. Mark Scott, CM
City of Beverly Hills
450 North Crescent Drive
Beverly Hills, CA 90210-4892

12. Mrs. Dolly Vollaire, CM
City of Bradbury
600 Winston Avenue
Bradbury, CA 91010

13. Mr. Robert R. Ovrom, CM
City of Burbank
275 East Olive Avenue
Burbank, CA 91502

14. Mr. Charles Cate, CM
City of Calabasas
P.O. Box 8781
Calabasas, CA 91372-8781

15. Mr. Larry Olson, Acting CA
City of Carson
701 East Carson Street
Carson, CA 90749

16. Mr. Art Gallucci, Acting CM
City of Cerritos
P.O. Box 3130
Cerritos, CA 90703-3130

17. Mr. Glenn D. Southard, CM
City of Claremont
207 Harvard Avenue
Claremont, CA 91711

18. Mr. Louis Shepard
City of Commerce
2535 Commerce Way
Commerce, CA 90040

19. Mr. Howard Caldwell, CM
City of Compton
205 South Willowbrook Avenue
Compton, CA 90220

20. Mr. John R. Thomson, CM
City of Covina
125 East College Street
Covina, CA 91723-2199

21. Mr. Jack Joseph, CM
City of Cudahy
5220 Santa Ana Street
Cudahy, CA 90201

22. Mr. H. Dale Jones, CAO
City of Culver City
4095 Overland Avenue
Culver City, CA 90232

23. Mr. Robert Van Nort, CM
City of Diamond Bar
21660 East Copely Drive, Suite 100
Diamond Bar, CA 91765

24. Mr. Gerald M. Caton, CM
City of Downey
11111 Brookshire Avenue
Downey, CA 90241-0607

25. Mr. Jesse Duff, CM
City of Duarte
1600 Huntington Drive
Duarte, CA 91010

26. Mr. Gregory D. Korduner, AO
City of El Monte
11333 Valley Boulevard
El Monte, CA 91731

27. Mr. Ronald Cano, CM
City of El Segundo
350 Main Street
El Segundo, CA 90245-0989

28. Mr. Kenneth Landau, CM
City of Gardena
1700 West 162nd Street
Gardena, CA 90247-3732

29. Mr. David Ramsay, CM
City of Glendale
613 East Broadway
Glendale, CA 91206-4393

30. Mr. Arthur E. Cook, CM
City of Glendora
116 East Foothill Boulevard
Glendora, CA 91740

31. Mr. Nelson Oliva, CA
City of Hawaiian Gardens
21815 Pioneer Boulevard
Hawaiian Gardens, CA 90716-1299

32. Mr. Jim Mitch, CM
City of Hawthorne
4455 West 126th Street
Hawthorne, CA 90250

33. Mr. Kevin Northcraft, CM
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, CA 90254-0299

34. Ms. Cherie Paglia, City Clerk
City of Hidden Hills
24549 Long Valley Road
Hidden Hills, CA 91302

35. Mr. Donald L. Jeffers, CAO
City of Huntington Park
6550 Miles Avenue
Huntington Park, CA 90255

36. Mr. Chris R. Rope, CM
City of Industry
15651 East Stafford Street
Industry, CA 91744

37. Mr. Paul D. Eckles, CM
City of Inglewood
One Manchester Boulevard
Inglewood, CA 90301

38. Mr. Charles R. Martin, Acting CM
City of Irwindale
5050 North Irwindale Avenue
Irwindale, CA 91706

39. Ms. Gabrielle Pryor, CM
City of La Cañada-Flintridge
1327 Foothill Boulevard
La Cañada-Flintridge, CA 91011-2137

40. Ms. Noelia Chapa, CM
City of La Habra Heights
1245 North Hacienda Boulevard
La Habra Heights, CA 90631

41. Mr. Gary Sloan, CM
City of La Mirada
13700 La Mirada Boulevard
La Mirada, CA 90638

42. Mr. Robert G. Gutierrez, CM
City of La Puente
15900 East Main Street
La Puente, CA 91744

43. Mr. Martin R. Lomeli, CM
City of La Verne
3660 "D" Street
La Verne, CA 91750

44. Mr. Howard L. Chambers, CA
City of Lakewood
5050 North Clark Avenue
Lakewood, CA 90712

45. Mr. James Gilley, CM
City of Lancaster
44933 North Fern Avenue
Lancaster, CA 93534

46. Mr. John Nowak, CM
City of Lawndale
14717 Burin Avenue
Lawndale, CA 90260

47. Mr. Walker J. Ritter, CA
City of Lomita
24300 Narbonne Avenue
Lomita, CA 90717

48. Mr. James C. Hankla, CM
City of Long Beach
333 West Ocean Boulevard
Long Beach, CA 90802

49. Mr. Keith Comrie, CA
City of Los Angeles
200 North Spring Street
Los Angeles, CA 90012

50. Mr. Michael Heriot, CM
City of Lynwood
11330 Bullis Road
Lynwood, CA 90262

51. Mr. Raymond B. Taylor, CM
City of Malibu
23805 Stuart Ranch Road, Suite 245
Malibu, CA 90265

52. Mr. Bill Smith, CM
City of Manhattan Beach
1400 Highland Avenue
Manhattan Beach, CA 90266

53. Mr. Leonard R. Locher, CA
City of Maywood
4319 East Slauson Avenue
Maywood, CA 90270-2897

54. Mr. Rod Gould, CM
City of Monrovia
415 South Ivy Avenue
Monrovia, CA 91016-2888

55. Mr. Richard Torres, CA
City of Montebello
1600 West Benerly Boulevard
Montebello, CA 90640

56. Mr. Chris Jeffers, Acting CM
City of Monterey Park
320 West Newmark Avenue
Monterey Park, CA 91754

57. Mr. Richard R. Powers, CM
City of Norwalk
12700 Norwalk Boulevard
Norwalk, CA 90650

58. Mr. Robert W. Toone Jr., CA
City of Palmdale
38300 North Sierra Hwy.
Palmdale, CA 93550

59. Mr. James B. Hendrickson, CM
City of Palos Verdes Estates
340 Palos Verdes Drive West
Palos Verdes Estates, CA 90274-0283

60. Mr. William A. Holt, CM
City of Paramount
16400 Colorado Avenue
Paramount, CA 90723

61. Mr. Philip A. Hawkey, CM
City of Pasadena
100 North Garfield Avenue
Pasadena, CA 91109-7215

62. Mr. Dennis Courtemarche, CM
City of Pico Rivera
6615 South Passons Boulevard
Pico Rivera, CA 90660

63. Mr. Julio J. Fuentes, CA
City of Pomona
505 South Garey Avenue
Pomona, CA 91766

64. Mr. Paul D. Bussey, CM
City of Rancho Palos Verdes
30940 Hawthorne Boulevard
Rancho Palos Verdes, CA 90274-5391

65. Mr. William Kirchhoff, CA
City of Redondo Beach
415 Diamond Street
Redondo Beach, CA 90277

66. Mr. Craig Nealis, CM
City of Rolling Hills
2 Portuguese Bend Road
Rolling Hills, CA 90274

67. Mr. Doug Prichard, CM
City of Rolling Hills Estates
4045 Palos Verdes Drive
Rolling Hills Estates, CA 90274

68. Mr. Frank G. Tripepi, CM
City of Rosemead
8838 East Valley Boulevard
Rosemead, CA 91770

69. Mr. Robert L. Poff, CM
City of San Dimas
245 East Bonita Avenue
San Dimas, CA 91773

70. Ms. Mary Strenn, AO
City of San Fernando
117 Macneil Street
San Fernando, CA 91340-2993

71. Mr. Robert D. Clute, CA
City of San Gabriel
532 West Mission Drive
San Gabriel, CA 91776

72. Mr. Keith Till, Acting CM
City of San Marino
2200 Huntington Drive
San Marino, CA 91108

73. Mr. George Caravalho, CM
City of Santa Clarita
23920 Valencia Boulevard, Suite 300
Santa Clarita, CA 91355

74. Mr. Donald R. Powell, CM
City of Santa Fe Springs
11710 Telegraph Road
Santa Fe Springs, CA 90670

75. Mr. John Jalili, CM
City of Santa Monica
1685 Main Street
Santa Monica, CA 90401-3295

76. Mr. James E. McRea, CA
City of Sierra Madre
232 West Sierra Madre Boulevard
Sierra Madre, CA 91024-0457

77. Mr. Douglas La Bell, CM
City of Signal Hill
2175 Cherry Avenue
Signal Hill, CA 90806

78. Mr. Raul T. Romero, CM
City of South El Monte
1415 North Santa Anita Avenue
South El Monte, CA 91733

79. Mr. Todd W. Argow, CA
City of South Gate
8650 California Avenue
South Gate, CA 90280

80. Mr. John Bernardi, CM
City of South Pasadena
1414 Mission Street
South Pasadena, CA 91030

81. Ms. Denise Ovrom, CM
City of Temple City
9701 East Las Tunas Drive
Temple City, CA 91780-0668

82. Mr. LeRoy J. Jackson, CM
City of Torrance
3031 Torrance Boulevard
Torrance, CA 90503

83. Mr. Bruce V. Malkenhorst, CA
City of Vernon
4305 Santa Fe Avenue
Vernon, CA 90058

84. Mrs. Linda L. Holmes, CM
City of Walnut
21201 La Puente Road
Walnut, CA 91789

85. Mr. James Starbird, CM
City of West Covina
P.O. Box 1440
West Covina, CA 91793

86. Mr. Paul D. Brotzman, CM
City of West Hollywood
8611 Santa Monica Boulevard
West Hollywood, CA 90069

87. Mr. Larry Bagley, CM
City of Westlake Village
31824 Village Center Road
Westlake Village, CA 91361

88. Mr. Thomas G. Mauk, CM
City of Whittier
13230 East Penn Street
Whittier, CA 90602

TB:lz
jk8/MAIL

III. 4 LOS ANGELES COUNTY CONTIGUOUS AGENCIES

1. Mr. Dale Miller, Director
   Kern County Public Works Dept.
   2700 M St. Suite 500
   Bakersfield, CA 93301
   (805) 861-2481

2. Mr. Bill Zaun
   Director
   Orange County
   Environmental Management Department
   P.O. Box 4048
   Santa Ana, CA 92702-4048
   (714) 834-2308

3. Mr. Bill Sterling, Director
   San Bernardino County
   Solid Waste Management Dept.
   Garden Office BN. 1 Bldg. B
   621 E. Carnegie Dr., Suite 270
   San Bernardino, CA 92415-0017
   (714) 387-0106

4. Dr. Kay Martin, Director
   Ventura County
   Solid Waste Management Dept.
   5275 Colt St., Suite 1
   Ventura, CA 93003
   (805) 648-9233

IV. 3 STATE AGENCIES

1. Mr. Michael R. Frost, Chairman of the Board
   California Integrated
   Waste Management Board (CIWMB)
   8800 California Center Drive
   Sacramento, CA 95826
   (916) 327-0450

2. Mr. Robert P. Ghirelli
   Executive Officer
   California Regional Water
   Quality Control Board (CRWQCB)
   Los Angeles Region
   101 Centre Plaza Drive
   Montery Park, CA 91754
   (213) 266-7548

3. Mr. Harold Singer
   Executive Officer
   California Regional Water
    Quality Control Board (CRWQCB)
   Lahontan Region (Region 6)
   2092 Lake Tahoe Boulevard, Ste. 2
   South Lake Tahoe, CA 96150
   (916) 544-3481

V. 2 REGIONAL AGENCIES

1. Dr. James Lentz
   Executive Director
   South Coast Air Quality
    Management District (SCAQMD)
   21865 E. Copley Drive
   Diamond Bar, CA 91765
   (714) 396-2000

2. Mr. Mark Pisano
   Executive Director
   Southern California
    Association of Governments (SCAG)
   818 West 7th Street, 12th Floor
   Los Angeles, CA 90017
   (213) 266-7500

VI. 2 COUNTY DEPARTMENTS

1. Mr. Richard Hanson
   Executive Director
   Los Angeles County
    Department of Health Services
   Solid Waste Management Division
   2525 Corporate Center Place
   Monterey Park, CA 91754
   (213) 974-7711

2. Mr. Charles W. Carry
   Chief Engineer, General Manager
   County Sanitation
    Districts of Los Angeles County (CSD)
   P.O. Box 4998
   Whittier, CA 90607
   (213) 699-7411

VII. 2 LOS ANGELES CITY DEPARTMENTS

1. Mr. Delwin Biagi
   Director
   City of Los Angeles
   Department of Public Works
   Bureau of Sanitation
   200 N. Main Street, Rm. 1400 CHE
   Los Angeles, CA 90012
   (213) 485-5746

2. Ms. Joan Edwards
   Integrated Solid Waste Manager
   City of Los Angeles
   Board of Public Works
   200 N. Spring Street, Rm. 365 CH
   Los Angeles, CA 90012
   (213) 237-1444

TB:mm
mmwp2/SRRE.MAIL

PROOF OF PUBLICATION

Los Angeles Times

STATE OF CALIFORNIA
County of Los Angeles

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the notice published. I am the CHIEF LEGAL ADVERTISING CLERK of the Publisher of the LOS ANGELES TIMES, a newspaper of general circulation, printed and published daily in the City of Los Angeles, County of Los Angeles, and the LOS ANGELES TIMES has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of May 21, 1952, Case Number 598,599; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

January 18

all in the year 19 92

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Los Angeles, California, this

18th *day of* January, *19* 92

Arlene Flores

Signature

PUBLIC NOTICE

The Los Angeles County Department of Public Works is holding a series of public information meetings to receive comments on the Los Angeles County Preliminary Draft Source Reduction and Recycling Element, Preliminary Draft Household Hazardous Waste Element, and Draft Negative Declaration.

The Source Reduction and Recycling Element discusses the programs that will be implemented by the County to reduce, reuse, or recycle as much material as possible that is currently being sent to landfills. The Household Hazardous Waste Element discusses the programs that will be implemented to provide proper collection and disposal of household hazardous waste. The Negative Declaration document discusses the impacts the proposed programs will have on the environment.

The meeting will be held from 7:30 p.m. to 9:00 p.m. at the places and dates indicated below:

January 21, 1992	Stimson Park, 1545 South Stimson Avenue, Hacienda Heights
January 22, 1992	Tamarisk Elementary School, 1843 E. Ave. Q-5, Palmdale
January 23, 1992	Loma Alta Park, 3330 North Lincoln Ave., Altadena
January 28, 1992	F. D. Roosevelt Park, 7600 Graham Avenue, Los Angeles
January 29, 1992	Pine Tree Elementary School, 29156 Lotus Garden, Canyon Country
January 30, 1992	Burton Chase Park, 13650 Mindanao Way, Marina Del Rey
February 3, 1992	Griffith Jr. High School, 4765 East 4th Street, Los Angeles
February 4, 1992	Sorensen Park, 11419 Rosehedge Drive, Whittier
February 5, 1992	Sanitation Districts Offices, 1955 Workman Mill Rd., Whittier
February 6, 1992	Topanga School, 141 North Topanga Boulevard, Topanga

Copies of these documents are available for review at the following locations:

Los Angeles County Department of Public Works
Waste Management Division
900 South Fremont Avenue, Alhambra
Monday through Thursday from 7:00 a.m. to 5:30 p.m.
and
All Los Angeles County Public Libraries
Check the telephone listings for the County Library nearest you.

If you have any questions, please call the Los Angeles County Department of Public Works, Recycling Hotline at 1-800-552-5218, Monday through Thursday, 7:00 a.m. to 5:30 p.m.

Si no entiende esta noticia o necesita mas informacion favor llame a este numero 1-800-552-5218, de lunes a jueves de 7:00 a.m. - 5:30 p.m.

CALIFORNIA NEWSPAPER SERVICE BUREAU, INC.

Legal Advertising Newspaper Representatives

Office: 205 South Broadway, Suite 720
P.O. Box 51310
Los Angeles, CA 90054-0310

Other offices in Sacramento, San Francisco, San Diego and Santa Ana.

PROOF OF PUBLICATION

Los Angeles Times

STATE OF CALIFORNIA
County of Los Angeles

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the notice published. I am the CHIEF LEGAL ADVERTISING CLERK of the Publisher of the LOS ANGELES TIMES, a newspaper of general circulation, printed and published daily in the City of Los Angeles, County of Los Angeles, and the LOS ANGELES TIMES has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of May 21, 1952, Case Number 598,599; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

January 25

all in the year 19 92

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Los Angeles, California, this

25th *day of* January, *19* 92

Arlene Flores
Signature

PUBLIC NOTICE

The Los Angeles County Department of Public Works is holding a series of public information meetings to receive comments on the Los Angeles County Preliminary Draft Source Reduction and Recycling Element, Preliminary Draft Household Hazardous Waste Element, and Draft Negative Declaration.

The Source Reduction and Recycling Element discusses the programs that will be implemented by the County to reduce, reuse, or recycle as much material as possible that is currently being sent to landfills. The Household Hazardous Waste Element discusses the programs that will be implemented to provide proper collection and disposal of household hazardous waste. The Negative Declaration document discusses the impacts the proposed programs will have on the environment.

The meeting will be held from 7:30 p.m. to 9:00 p.m. at the places and dates indicated below:

January 28, 1992	F. D. Roosevelt Park, 7600 Graham Avenue, Los Angeles
January 29, 1992	Pine Tree Elementary School, 29156 Lotus Garden, Canyon Country
January 30, 1992	Burton Chase Park, 13650 Mindanao Way, Marina Del Rey
February 3, 1992	Griffith Jr. High School, 4765 East 4th Street, Los Angeles
February 4, 1992	Sorensen Park, 11419 Rosehedge Drive, Whittier
February 5, 1992	Sanitation Districts Offices, 1955 Workman Mill Rd., Whittier
February 6, 1992	Topanga School, 141 North Topanga Boulevard, Topanga

Copies of these documents are available for review at the following locations:

Los Angeles County Department of Public Works
Waste Management Division
900 South Fremont Avenue, Alhambra
Monday through Thursday from 7:00 a.m. to 5:30 p.m.
and
All Los Angeles County Public Libraries
Check the telephone listings for the County Library nearest you.

If you have any questions, please call the Los Angeles County Department of Public Works, Recycling Hotline at 1-800-552-5218, Monday through Thursday, 7:00 a.m. to 5:30 p.m.

Si no entiende esta noticia o necesita mas informacion favor llame a este numero 1-800-552-5218, de lunes a jueves de 7:00 a.m. - 5:30 p.m.

CALIFORNIA NEWSPAPER SERVICE BUREAU, INC.

Legal Advertising Newspaper Representatives

Office: 205 South Broadway, Suite 720
P.O. Box 51310
Los Angeles, CA 90054-0310

Other offices in Sacramento, San Francisco, San Diego and Santa Ana.

PROOF OF PUBLICATION

Los Angeles Times

STATE OF CALIFORNIA
County of Los Angeles

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the notice published. I am the CHIEF LEGAL ADVERTISING CLERK of the Publisher of the LOS ANGELES TIMES, a newspaper of general circulation, printed and published daily in the City of Los Angeles, County of Los Angeles, and the LOS ANGELES TIMES has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of May 21, 1952, Case Number 598,599; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

February 1

all in the year 19 92

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Los Angeles, California, this

1st *day of* February, *19* 92

Arlene Flores

Signature

PUBLIC NOTICE

The Los Angeles County Department of Public Works is holding a series of public information meetings to receive comments on the Los Angeles County Preliminary Draft Source Reduction and Recycling Element, Preliminary Draft Household Hazardous Waste Element, and Draft Negative Declaration.

The Source Reduction and Recycling Element discusses the programs that will be implemented by the County to reduce, reuse, or recycle as much material as possible that is currently being sent to landfills. The Household Hazardous Waste Element discusses the programs that will be implemented to provide proper collection and disposal of household hazardous waste. The Negative Declaration document discusses the impacts the proposed programs will have on the environment.

The meeting will be held from 7:30 p.m. to 9:00 p.m. at the places and dates indicated below:

February 3, 1992 Griffith Jr. High School, 4765 East 4th Street, Los Angeles
February 4, 1992 Sorensen Park, 11419 Rosehedge Drive, Whittier
February 5, 1992 Sanitation Districts Offices, 1955 Workman Mill Rd., Whittier
February 6, 1992 Topanga School, 141 North Topanga Boulevard, Topanga

Copies of these documents are available for review at the following locations:

Los Angeles County Department of Public Works
Waste Management Division
900 South Fremont Avenue, Alhambra
Monday through Thursday from 7:00 a.m. to 5:30 p.m.
and
All Los Angeles County Public Libraries
Check the telephone listings for the County Library nearest you.

If you have any questions, please call the Los Angeles County Department of Public Works, Recycling Hotline at 1-800-552-5218, Monday through Thursday, 7:00 a.m. to 5:30 p.m.

Si no entiende esta noticia o necesita mas informacion favor llame a este numero 1-800-552-5218, de lunes a jueves de 7:00 a.m. - 5:30 p.m.

CALIFORNIA NEWSPAPER SERVICE BUREAU, INC.

Legal Advertising Newspaper Representatives

Office: 205 South Broadway, Suite 720
P.O. Box 51310
Los Angeles, CA 90054-0310

Other offices in Sacramento, San Francisco, San Diego and Santa Ana.

LAT01

PROOF OF PUBLICA..ON

(2015.5 C.C.P.)

This space is the County Clerk's Filing Stamp

STATE OF CALIFORNIA,

County of Los Angeles,

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer

of the San Gabriel Valley Daily Tribune

a newspaper of general circulation, printed and published

daily

in the City of West Covina

County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of Sept. 10, 19 57,

Case Number 684891; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

January 18,

all in the year 19 92.

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at West Covina

California, this 18th day of January 19 92

Signature

Proof of Publication of

PUBLIC INFORMATION MEETINGS
LOS ANGELES COUNTY PRELIMINARY
DRAFT SOURCE REDUCTION AND RECYCLIN
ELEMEN

PUBLIC NOTICE

The Los Angeles County Department of Public Works is holding a series of public information meetings to receive comments on the Los Angeles County Preliminary Draft Source Reduction and Recycling Element. Preliminary Draft Household Hazardous Waste Element, and Draft Negative Declaration.

The Source Reduction and Recycling Element discusses the programs that will be implemented by the County to reduce, reuse, or recycle as much material as possible that is currently being sent to landfills. The Household Hazardous Waste Element discusses the programs that will be implemented to provide proper collection and disposal of household hazardous waste. The Negative Declaration document discusses the impacts the proposed programs will have on the environment.

The meetings will be held from 7:30 p.m. to 9:00 p.m. at the places and dates indicated below:

January 21, 1992 - Stimson Park, 1545 South Stimson Avenue, Hacienda Heights
January 22, 1992 - Tamarisk Elementary School, 1843 E. Ave. Q-6, Palmdale
January 23, 1992 - Loma Alta Park, 3330 North Lincoln Ave., Altadena
January 28, 1992 - F. D. Roosevelt Park, 7600 Graham Avenue, Los Angeles
January 29, 1992 - Pine Tree Elementary School, 29156 Lotus Garden, Canyon County
January 30, 1992 - Burton Chase Park, 13650 Mindanao Way, Marina Del Rey
February 3, 1992 - Griffith Jr. High School, 4765 East 4th Street, Los Angeles
February 4, 1992 - Sorensen Park, 11419 Rosehedge Drive, Whittier
February 5, 1992 - Sanitation Districts Offices, 1955 Workman Mill Rd., Whittier
February 6, 1992 - Topanga School, 141 North Topanga Boulevard, Topanga

Copies of these documents are available for review at the following locations:

Los Angeles County Department of Public Works
Waste Management Division
900 South Fremont Avenue, Alhambra
Monday through Thursday from 7:00 a.m. to 5:30 p.m.
and
All Los Angeles County Public Libraries
Check the telephone listings for the County Library nearest you.

If you have any questions, please call the Los Angeles County Department of Public Works, Recycling Hotline at 1-800-552-5218, Monday through Thursday, 7:00 a.m. to 5:30 p.m.

Si no entienda asta noticia o necesita mas informacion favor llame a este numero 1-800-552-5218, de lunes a jueves de 7:00 a.m. -5:30 p.m.

Publish: January 18, 1992. E. No. 10868
San Gabriel Valley Tribune.

PROOF OF PUBLICATION

(2015.5 C.C.P.)

This space is for the County Clerk's Filing Stamp

STATE OF CALIFORNIA,

County of Los Angeles,

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of the San Gabriel Valley Daily Tribune

a newspaper of general circulation, printed and published daily in the City of West Covina County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of Sept. 10, 19 57, Case Number 934391; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

January 25,

all in the year 1992.

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at West Covina

California, this 25th day of JANUARY, 1992

Signature

Proof of Publication of

PUBLIC INFORMATION MEETING

Recycling

COUNTY OF LOS ANGELES

G 169169

PUBLIC NOTICE

The Los Angeles County Department of Public Works is holding a series of public information meetings to receive comments on the Los Angeles County Preliminary Draft Source Reduction and Recycling Element, Preliminary Draft Household Hazardous Waste Element, and Draft Negative Declaration.

The Source Reduction and Recycling Element discusses the programs that will be implemented by the County to reduce, reuse or recycle as much material as possible that is currently being sent to landfills. The Household Hazardous Waste Element discusses the programs that will be implemented to provide proper collection and disposal of household hazardous waste. The Negative Declaration document discusses the impacts the proposed programs will have on the environment.

The meeting will be held from 7:30 p.m. to 9:00 p.m. at the places and and dates indicated below:

January 28, 1992 - F. D. Roosevelt Park, 7600 Graham Avenue, Los Angeles

January 29, 1992 - Pine Tree Elementary School, 29156 Lotus Garden, Canyon Country

January 30, 1992 - Burton Chase Park, 13650 Mindanao Way, Marina Del Rey

February 3, 1992 - Griffith Jr. High School, 4765 East 4th Street, Los Angeles

February 4, 1992 - Sorensen Park, 11419 Rosehedge Drive, Whittier

February 5, 1992 - Santitation Districts Offices, 1955 Workman Mill Road, Whittier

February 6, 1991 - Topanga School, 141 North Topanga Boulevard, Topanga

Copies of these documents are available for review at the following locations:

Los Angeles County
Department of Public Works
Waste Management Division
900 South Fremont Avenue, Alhambra
Monday through Thursday
from 7:00 a.m. to 5:30 p.m.
and
All Los Angeles County Public Libraries

Check the telephone listings of the County Library nearest you.

If you have any questions, please call the Los Angeles County Department of Public Works, Recycling Hotline at 1-800-552-5218, Monday through Thursday, 7:00 a.m. to 5:30 p.m.

Si no entienda esta noticia o necesita mas informacion favor llame a este numero 1-800-552-5218, de lunes a jueves de 7:00 a.m. - 5:30 p.m.

Publish: January 25, 1992. E. No. 5022
San Gabriel Valley Tribune

PROOF OF PUBLICA..ON

(2015.5 C.C.P.)

This space i. : the County Clerk's Filing Stamp

STATE OF CALIFORNIA.

County of Los Angeles.

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer

of the San Gabriel Valley Daily Tribune.

a newspaper of general circulation, printed and published

daily

in the City of West Covina

County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of Sept. 10, 19 57, Case Number 684391; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

February 1,

all in the year 1992.

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at West Covina

California, this 1st day of February, 1992

Signature

Proof of Publication of

PUBLIC INFORMATION MEETINGS

RECYCLING

COUNTY OF LOS ANGELES

G-169644

PUBLIC NOTICE

The Los Angeles County Department of Public Works is holding a series of public information meetings to receive comments on the Los Angeles County Preliminary Draft Source Reduction and Recycling Element, Preliminary Draft Household Hazardous Waste Element, and Draft Negative Declaration.

The Source Reduction and Recycling Element discusses the programs that will be implemented by the County to reduce, reuse, or recycle as much material as possible that is currently being sent to landfills. The Household Hazardous Waste Element discusses the programs that will be implemented to provide proper collection and disposal of household hazardous waste. The Negative Declaration document discusses the impacts the proposed programs will have on the environment.

The meetings will be held from 7:30 p.m. to 9:00 p.m. at the places and dates indicated below:

February 3, 1992 Griffith Jr.High School
4765 East 4th Street, Los Angeles
February 4, 1992 Sorenson Park
11419 Rosehedge Drive, Whittier
February 5, 1992 Sanitation District Offices
1955 Workman Mill Road., Whittier
February 6, 1992 Toppanga School
141 North Topanga Boulevard, Topanga

Copies of these documents are available for review at the following locations:

Los Angeles County Department
of Public Works
Waste Management Division
900 South Fremont Avenue, Alhambra
Monday through Thursday from
7:00 a.m. to 5:30 p.m.
and
All Los Angeles County Public Libraries
Check the telephone listings for the
County Library nearest you.

If you have any questions, please call the Los Angeles County Department of Public Works, Recycling Hotline at 1-800-552-5218, Monday through Thursday, 7:00 a.m. to 5:30 p.m.

Si no entienda asta noticia o necesita mas informacion favor llame a este numero 1-800-552-5218, de lunes a jueves de 7:00 a.m. -5:30 p.m.

Publish: February 1, 1992 E. No. 5087
San Gabriel Valley Tribune.

PROOF OF PUBLICATION
(2015.5 C.C.P.)

This space is for the County Clerk's Filing Stamp

STATE OF CALIFORNIA,
County of Los Angeles,

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of the

Daily News

a newspaper of general circulation, printed and published 7 times weekly in the Cities of Los Angeles, Burbank & San Fernando, County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of May 26, 1983, Case Number Adjudication #C349217; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit: .....

.....1/21/16.....

all in the year 19 92

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Woodland Hills,

California, this 16th day of Jan., 19 92

.....
Signature

DN - 2510

Proof of Publication of

G 168948

Paste Clipping of Notice

Public Notices

(DAILY NEWS G 168948)

PUBLIC NOTICE

The Los Angeles County Department of Public Works is holding a series of public information meetings to receive comments on the Los Angeles County Preliminary Draft Source Reduction and Recycling Element, Preliminary Draft Household Hazardous Waste Element, and Draft Negative Declaration.

The Source Reduction and Recycling Element discusses the programs that will be implemented by the County to reduce, reuse, or recycle as much material as possible that is currently being sent to landfills. The Household Hazardous Waste Element discusses the programs that will be implemented to provide proper collection and disposal of household hazardous waste. The Negative Declaration document discusses the impacts the proposed programs will have on the environment.

The meetings will be held from 7:30 p.m. to 9:00 p.m. at the places and dates indicated below:

January 21, 1992
Stimson Park
1545 South Stimson Avenue,
Hacienda Heights

January 22, 1992
Tamarisk
Elementary School
1843 E. Ave. Q-6, Palmdale

January 23, 1992
Loma Alta Park,
3330 North Lincoln Ave.,
Altadena

January 28, 1992
F.D. Roosevelt Park,
7600 Graham Avenue,
Los Angeles

January 29, 1992
Pine Tree Elementary School,
29156 Lotus Garden,
Canyon Country

January 30, 1992
Burton Chase Park,
13650 Mindanao Way,
Marina Del Rey

February 3, 1992
Griffith Junior
High School
4765 East 4th Street,
Los Angeles

February 4, 1992
Sorensen Park
11419 Rosehedge Drive,
Whittier

February 5, 1992
Sanitation
Districts Offices
1955 Workman Mill Rd.,
Whittier

February 6, 1992
Topanga School
141 North Topanga
Boulevard, Topanga

Copies of these documents are available for review at the following locations:

Los Angeles County
Department of
Public Works
Waste Management
Division
900 South Fremont
Avenue, Alhambra
Monday through Thursday
from 7:00 a.m. to 5:30 p.m.
and
All Los Angeles County
Public Libraries
Check the telephone listings
for the County Library
nearest you.

If you have any questions, please call the Los Angeles County Department of Public Works, Recycling Hotline at 1-800-552-5218, Monday through Thursday, 7:00 a.m. to 5:30 p.m.

Si no entiende esta noticia o necesita mas informacion favor llame a este numero 1-800-552-5218, de lunes a jueves de 7:00 a.m. - 5:30 p.m.

Publish January 18, 1992

PROOF OF PUBLICATION
(2015.5 C.C.P.)

This space is for the County Clerk's Filing Stamp

STATE OF CALIFORNIA,
County of Los Angeles,

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of the

Daily News

a newspaper of general circulation, printed and published 7 times weekly in the Cities of Los Angeles, Burbank & San Fernando, County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of May 26, 1983, Case Number Adjudication #C349217; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit: Jan 25

all in the year 19 92

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Woodland Hills,

California, this 27th day of Jan, 92

Signature

Proof of Publication of G169174

Paste Clipping of Notice SECURELY In This Space

Public Notices

(DAILY NEWS G 169174)

PUBLIC NOTICE

The Los Angeles County Department of Public Works is holding a series of public information meetings to receive comments on the Los Angeles County Preliminary Draft Source Reduction and Recycling Element, Preliminary Draft Household Hazardous Waste Element, and Draft Negative Declaration.

The Source Reduction and Recycling Element discusses the programs that will be implemented by the County to reduce, reuse, or recycle as much material as possible that is currently being sent to landfills. The Household Hazardous Waste Element discusses the programs that will be implemented to provide proper collection and disposal of household hazardous waste. The Negative Declaration document discusses the impacts the proposed programs will have on the environment.

The meeting will be held from 7:30 p.m. to 9:00 p.m. at the places and dates indicated below:

January 28, 1992
F.D. Roosevelt Park, 7600 Graham Avenue, Los Angeles
January 29, 1992
Pine Tree Elementary School, 29156 Lotus Garden, Canyon Country
January 30, 1992
Burton Chase Park, 13650 Mindanao Way, Marina Del Rey
February 3, 1992
Griffith Jr. High School, 4765 East 4th Street, Los Angeles
February 4, 1992
Sorensen Park, 11419 Rosehedge Drive, Whittier
February 5, 1992
Sanitation Districts Offices, 1955 Workman Mill Rd., Whittier
February 6, 1992
Topanga School, 141 North Topanga Boulevard, Topanga

Copies of these documents are available for review at the following locations:

Los Angeles County Department of Public Works Waste Management Division
900 South Fremont Avenue, Alhambra
Monday through Thursday from 7:00 a.m. to 5:30 p.m.
and
All Los Angeles County Public Libraries
Check the telephone listings for the County Library nearest you.

If you have any questions, please call the Los Angeles County Department of Public Works, Recycling Hotline at 1-800-552-5218, Monday through Thursday, 7:00 a.m. to 5:30 p.m.

Si no entiende esta noticia o necesita mas informacion favor llame a este numero 1-800-552-5218, de lunes a jueves de 7:00 a.m. - 5:30 p.m.

Publish January 25, 1992

DN - 2510

PROOF OF PUBLICATION
(2015.5 C.C.P.)

This space is for the County Clerk's Filing Stamp

STATE OF CALIFORNIA,
County of Los Angeles,

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of the

Daily News

a newspaper of general circulation, printed and published 7 times weekly in the Cities of Los Angeles, Burbank & San Fernando, County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of May 26, 1983, Case Number Adjudication #C349217; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit: .....

.....

all in the year 19 .....

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Woodland Hills,

California, this ..... day of ....., 19.....

.....
Signature

Proof of Publication of

.....

.....

Paste Clippi
of Notice
SECUREL
In This Spa

Public Notices

(DAILY NEWS G 169639)

PUBLIC NOTICE

The Los Angeles County Department of Public Works is holding a series of public information meetings to receive comments on the Los Angeles County Preliminary Draft Source Reduction and Recycling Element, Preliminary Draft Household Hazardous Waste Element, and Draft Negative Declaration.

The Source Reduction and Recycling Element discusses the programs that will be implemented by the County to reduce, reuse, or recycle as much material as possible that is currently being sent to landfills. The Household Hazardous Waste Element discusses the programs that will be implemented to provide proper collection and disposal of household hazardous waste. The Negative Declaration document discusses the impacts the proposed programs will have on the environment.

The meeting will be held from 7:30 p.m. to 9:00 p.m. at the places and dates indicated below:

February 3, 1992
Griffith Jr. High School,
4765 East 4th Street,
Los Angeles

February 4, 1992
Sorensen Park,
11419 Rosehedge Drive,
Whittier

February 5, 1992
Sanitation Districts Offices,
1955 Workman Mill Rd.,
Topanga

February 6, 1992
Topanga School,
141 North Topanga
Boulevard, Topanga

Copies of these documents are available for review at the following locations:

Los Angeles
County Department
of Public Works
Waste Management
Division
900 South Fremont Avenue,
Alhambra
Monday through Thursday
from 7:00 a.m. to 5:30 p.m.
and
All Los Angeles
County Public Libraries
Check the telephone
listings for the County
Library nearest you.

If you have any questions, please call the Los Angeles County Department of Public Works, Recycling Hotline at 1-800-552-5218, Monday through Thursday, 7:00 a.m. to 5:30 p.m.

Si no entiende esta noticia o necesita mas informacion favor llame a este numero 1-800-552-5218, de lunes a jueves de 7:00 a.m. - 5:30 p.m.

Publish February 1, 1992

PROOF OF PUBLICATION

(2015.5 C.C.P.)

STATE OF CALIFORNIA,)
) ss
County of Los Angeles,)

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the principal clerk of the printer of the **Antelope Valley Press**, a newspaper of general circulation, printed and published **five times a week** in the City of **Palmdale**, County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under date of Oct. 24, 1931, Case Number 328601; Modified Case Number 657770 April 11, 1956; also operating as the Ledger-Gazette, adjudicated a legal newspaper June 15, 1927, by Superior Court decree No. 224545; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

JANUARY 19,

all in the year 199 2 .

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Signature

Date JANUARY 19 , 199 2 .

This space is for the County Clerk's Filing Stamp

Proof of Publication of G168949

PUBLIC INFORMATION MEETINGS

G168949
PUBLIC NOTICE

The Los Angeles County Department of Public Works is holding a series of public information meetings to receive comments on the Los Angeles County Preliminary Draft Source Reduction and Recycling Element, Preliminary Draft Household Hazardous Waste Element, and Draft Negative Declaration.

The Source Reduction and Recycling Element discusses the programs that will be implemented by the County to reduce, reuse, or recycle as much material as possible that is currently being sent to landfills. The Household Hazardous Waste Element discusses the programs that will be implemented to provide proper collection and disposal of household hazardous waste. The Negative Declaration document discusses the impacts the proposed programs will have on the environment.

The meetings will be held from 7:30 p.m. to 9:00 p.m. at the places and dates indicated below:

January 21, 1992 Stimson Park, 1545 South Stimson Avenue, Hacienda Heights.
January 22, 1992 Tamarisk Elementary School, 1843 E. Ave. Q-8, Palmdale
January 23, 1992 Loma Alta Park, 3330 North Lincoln Ave., Altadena
January 28, 1992 F.D. Roosevelt Park, 7600 Graham Avenue, Los Angeles
January 29, 1992 Pine Tree Elementary School, 29156 Lotus Garden, Canyon Country
January 30, 1992 Burton Chase Park, 13650 Mindanao Way, Marina Del Rey
February 3, 1992 Griffith Jr. High School, 4765 East 4th Street, Los Angeles
February 4, 1992 Sorensen Park, 11419 Rosehedge Drive, Whittier
February 5, 1992 Sanitation Districts Offices, 1955 Workman Mill Rd., Whittier
February 6, 1992 Topanga School, 141 North Topanga Boulevard, Topanga

Copies of these documents are available for review at the following locations:

Los Angeles County Department of Public Works
Waste Management Division
900 South Fremont Avenue, Alhambra
Monday through Thursday from 7:00 a.m. 5:30 p.m.
and
All Los Angeles County Public Libraries
Check the telephone listings for the County Library nearest you.

If you have any questions, please call the Los Angeles County Department of Public Works, Recycling Hotline at 1-800-552-5218, Monday through Thursday, 7:00 a.m. to 5:30 p.m.

Si no entiende esta noticia o necesita mas informacion favor llame a este numero 1-800-552-5218, de lunes a jueves de 7:00 a.m. - 5:30 p.m.

Publish: January 19, 1993

PROOF OF PUBLICATION

(2015.5 C.C.P.)

STATE OF CALIFORNIA,)
) ss
County of Los Angeles,)

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the principal clerk of the printer of the **Antelope Valley Press**, a newspaper of general circulation, printed and published **five times a week** in the City of **Palmdale**, County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under date of Oct. 24, 1931, Case Number 328601; Modified Case Number 657770 April 11, 1956; also operating as the Ledger-Gazette, adjudicated a legal newspaper June 15, 1927, by Superior Court decree No. 224545; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

JANUARY 26,

all in the year 1992.

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Signature

Date JANUARY 26, 1992.

This spa is for the County Clerk's Filing Stamp

Proof of Publication of G169173

DRAFT SOURCE REDUCTION

G169173
PUBLIC NOTICE

The Los Angeles County Department of Public Works is holding a series of public information meetings to receive comments on the Los Angeles County Preliminary Draft Source Reduction and Recycling Element, Preliminary Draft Household Hazardous Waste Element, and Draft Negative Declaration.

The Source Reduction and Recycling Element discusses the programs that will be implemented by the County to reduce, reuse, or recycle as much material as possible that is currently being sent to landfills. The Household Hazardous Waste Element discusses the programs that will be implemented to provide proper collection and disposal of household hazardous waste. The Negative Declaration document discusses the impacts the proposed programs will have on the environment.

The meeting will be held from 7:30 p.m. to 9:00 p.m. at the places and dates indicated below:

January 28, 1992 F.D. Roosevelt Park, 7600 Graham Avenue, Los Angeles
January 29, 1992 Pine Tree Elementary School, 29156 Lotus Garden, Canyon Country
January 30, 1992 Burton Chase Park, 13650 Mindanao Way, Marina Del Rey
February 3, 1992 Griffith Jr. High School, 4765 East 4th Street, Los Angeles
February 4, 1992 Sorensen park, 11419 Rosehedge Drive, Whittier
February 5, 1992 Sanitation Districts Offices, 1955 Workman Mill Rd., Whittier
February 6, 1992 Topanga School, 141 North Topanga Boulevard, Topanga

Copies of these documents are available for review at the following locations:

Los Angeles County Department of Public Works
Waste Management Division
900 South Fremont Avenue, Alhambra
Monday through Thursday from 7:00 a.m. to 5:30 p.m.
and
All Los Angeles County Public Libraries

Check the telephone listings for the County Library nearest you.

If you have any questions, please call the Los Angeles County Department of Public Works, Recycling Hotline at 1-800-552-5218, Monday through Thursday, 7:00 a.m. to 5:30 p.m.

Si no entiende esta noticia o necesita mas informacion favor llame a este numero 1-800-552-5218, de lunes a jueves de 7:00 a.m.-5:30 p.m.

Publish: January 26, 1992

PROOF OF PUBLICATION

(2015.5 C.C.P.)

This space is for the County Clerk's Filing Stamp

STATE OF CALIFORNIA,)
) ss
County of Los Angeles,)

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the principal clerk of the printer of the **Antelope Valley Press**, a newspaper of general circulation, printed and published **five times a week** in the City of **Palmdale**, County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under date of Oct. 24, 1931, Case Number 328601; Modified Case Number 657770 April 11, 1956; also operating as the Ledger-Gazette, adjudicated a legal newspaper June 15, 1927, by Superior Court decree No. 224545; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

FEBRUARY 2,

all in the year 1992.

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Signature

Date FEBRUARY 2, 1992.

Proof of Publication of G169640

INFORMATION MEETING

G169640
PUBLIC NOTICE

The Los Angeles County Department of Public Works is holding a series of public information meetings to receive comments on the Los Angeles County Preliminary Draft Source Reduction and Recycling Element, Preliminary Draft Household Hazardous Waste Element, and Draft Negative Declaration.

The Source Reduction and Recycling Element discusses the programs that will be implemented by the County to reduce, reuse, or recycle as much material as possible that is currently being set to landfills. The Household Hazardous Waste Element discusses the programs that will be implemented to provide proper collection and disposal of household hazardous waste. The Negative Declaration document discusses the impacts the proposed programs will have on the environment.

The meeting will be held from 7:30 p.m. to 9:00 p.m. at the places and dates indicate below:

February 3, 1992 Griffith Jr. High School
4765 East 4th Street, Los Angeles

February 4, 1992 Sorensen Park
11419 Rosehedge Drive, Whittier

February 5, 1992 Sanitation Districts Offices
1955 Workman Mill Rd., Whittier

February 6, 1992 Topanga School
141 North Topanga Boulevard, Topanga

Copies of these documents are available for review at the following locations:

Los Angeles County Department of Public Works
Waste Management Division
900 South Fremont Avenue, Alhambra
Monday through Thursday from 7:00 a.m. to 5:30 p.m.
and
All Los Angeles County Public Libraries
Check the telephone listings for the County Library nearest you.

If you have any questions, please call the Los Angeles County Department of Public Works, Recycling Hotline at 1-800-552-5218, Monday through Thursday, 7:00 a.m. to 5:30 p.m.

Si no entiende esta noticia o necesita mas informacion favor llame a este numero 1-800-552-5218, de lunes a jueves de 7:00 a.m. - 5:30 p.m.

Publish: February 2, 1992

PROOF OF PUBLICATION
(2015.5 C.C.P)

STATE OF CALIFORNIA,
COUNTY OF LOS ANGELES,

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of the

The Signal

a newspaper of general circulation, printed and published Daily in the City of Santa Clarita County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of March 25, 1988 Case Number NVC 15880; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

Jan 18

all in the year 1992.

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Santa Clarita

California, this 20 day of JAN, 1992

Mona Rustico

Signature

Free copies of this blank form may be secured from:
California Newspaper Service Bureau, Inc.
Advertising Clearing House
P.O. Box 8022
El Monte, 91734-2322 (818) 288-CNSB
Please request GENERAL Proof of Publication when ordering this form.

This space is for the County Clerk's Filing Stamp

Proof of Publication of

G168950
PUBLIC NOTICE

The Los Angeles County Department of Public Works is holding a series of public information meetings to receive comments on the Los Angeles County Preliminary Draft Source Reduction and Recycling Element, Preliminary Draft Household Hazardous Waste Element, and Draft Negative Declaration.

The Source Reduction and Recycling Element discusses the programs that will be implemented by the County to reduce, reuse, or recycle as much material as possible that is currently being sent to landfills. The Household Hazardous Waste Element discusses the programs that will be implemented to provide proper collection and disposal of household hazardous waste. The Negative Declaration document discusses the impacts the proposed programs will have on the environment.

The meetings will be held from 7:30 p.m. to 9:00 p.m. at the places and dates indicated below:

January 21, 1992	Stimson Park, 1545 South Stimson Avenue, Hacienda Heights
January 22, 1992	Tamarisk Elementary School, 1843 E. Ave. Q-5, Palmdale
January 23, 1992	Loma Alta Park, 3330 North Lincoln Ave., Altadena
January 28, 1992	F.D. Roosevelt park, 7600 Graham Avenue, Los Angeles
January 29, 1992	Pine Tree Elementary School, 29156 Lotus Garden, Canyon Country
January 30, 1992	Burton Chase Park, 13650 Mindanao Way, Marina Del Rey
February 3, 1992	Griffith Jr. High School, 4765 East 4th Street, Los Angeles
February 4, 1992	Sorensen Park, 11419 Rosehedge Drive, Whittier
February 5, 1992	Sanitation Districts offices, 1955 Workman Mill Rd., Whittier
February 6, 1992	Topanga School, 141 North Topanga Boulevard, Topanga

Copies of these documents are available for review at the following locations:

Los Angeles County Department of Public Works
Waste Management Division
900 South Fremont Avenue, Alhambra
Monday through Thursday from 7:00 a.m. to 6:30 p.m.
and
All Los Angeles County Public Libraries
Check the telephone listings for the County Library nearest you.

If you have any questions, please call the Los Angeles County Department of Public Works, Recycling Hotline at 1-800-552-5218, Monday through Thursday, 7:00 a.m. to 5:30 p.m.

Si no entiende esta noticia o necesita mas informacion favor llame a este numero 1-800-552-5218, de lunes a jueves de 7:00 a.m.-5:30 P.M.

Publish in Newhall Signal and Saugus Enterprise January 18, 1992.

PROOF OF PUBLICATION
(2015.5 C.C.P)

STATE OF CALIFORNIA,
COUNTY OF LOS ANGELES,

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of the

The Signal

a newspaper of general circulation, printed and published Daily in the City of Santa Clarita County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of March 25, 1988, Case Number NVC 15880; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

Jan 25

all in the year 1992.

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Santa Clarita

California, this 27 day of JAN, 1992

Mona Restivo

Signature

Free copies of this blank form may be secured from:
California Newspaper Service Bureau, Inc.
Advertising Clearing House
P.O. Box 8022
El Monte, 91734-2322 (818) 288-CNSB
Please request GENERAL Proof of Publication when ordering this form.

This space is for the County Clerk's Filing Stamp

Proof of Publication of

PUBLIC NOTICE

The Los Angeles County Department of Public Works is holding a series of public information meetings to receive comments on the Los Angeles County Preliminary Draft Source Reduction and Recycling Element, Preliminary Draft Household Hazardous Waste Element, and Draft Negative Declaration.

The Source Reduction and Recycling Element discusses the programs that will be implemented by the County to reduce, reuse, or recycle as much material as possible that is currently being sent to landfills. The Household Hazardous Waste Element discusses the programs that will be implemented to provide proper collection and disposal of household hazardous waste. The Negative Declaration document discusses the impacts the proposed programs will have on the environment.

The meeting will be held from 7:30 p.m. to 9:00 p.m. at the places and dates indicated below:

January 28, 1992	F.D. Roosevelt Park, 7600 Graham Avenue, Los Angeles
January 29, 1992	Pine Tree Elementary School, 29156 Lotus Garden, Canyon Country
January 30, 1992	Burton Chase Park, 13650 Mindanao Way, Marina Del Rey
February 3, 1992	Griffith Jr. High School, 4765 East 4th Street, Los Angeles
February 4, 1992	Sorensen Park, 11419 Rosehedge Drive, Whittier
February 5, 1992	Sanitation Districts offices, 1955 Workman Mill Rd., Whittier
February 6, 1992	Topanga School, 141 North Topanga Boulevard, Topanga

Copies of these documents are available for review at the following locations:

Los Angeles County Department of Public Works
Waste Management Division
900 South Fremont Avenue, Alhambra
Monday through Thursday from 7:00 a.m. to 5:30 p.m.
and
All Los Angeles County Public Libraries
Check the telephone listings for the County Library nearest you.

If you have any questions, please call the Los Angeles County Department of Public Works Recycling Hotline at 1-800-552-5218, Monday through Thursday, 7:00 a.m. to 5:30 p.m.

Si no entiende esta noticia o necesita mas informacion favor llame a este numero 1-800-552-5218, de lunes a jueves de 7:00 a.m. - 5:30 p.m.

Publish in Newhall Signal and Saugus Enterprise January 25, 1992.

PROOF OF PUBLICATION
(2015.5 C.C.P)

STATE OF CALIFORNIA,
COUNTY OF LOS ANGELES,

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of the

The Signal

a newspaper of general circulation, printed and published Daily in the City of Santa Clarita County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of March 25, 19 88 Case Number NVC15880; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

Feb 1

all in the year 19 92.

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Santa Clarita California, this 3 day of Feb 19 92

Mona Rustiis
Signature

Free copies of this blank form may be secured from:
California Newspaper Service Bureau, Inc.
Advertising Clearing House
P.O. Box 8022
El Monte, 91734-2322 (818) 288-CNSB
Please request GENERAL Proof of Publication
when ordering this form.

This space is for the County Clerk's Filing Stamp

Proof of Publication of

G169641
PUBLIC NOTICE

The Los Angeles County Department of Public Works is holding a series of public information meetings to receive comments on the Los Angeles County Preliminary Draft Source Reduction and Recycling Element, Preliminary Draft Household Hazardous Waste Element, and Draft Negative Declaration.

The Source Reduction and Recycling Element discusses the programs that will be implemented by the County to reduce, reuse, or recycle as much material as possible that is currently being sent to landfills. The Household Hazardous Waste Element discusses the programs that will be implemented to provide proper collection and disposal of household hazardous waste. The Negative Declaration document discusses the impacts the proposed programs will have on the environment.

The meeting will be held from 7:30 p.m. to 9:00 p.m. at the places and dates indicated below:

February 3, 1992 — Griffith Jr. High School, 4765 East 4th Street, Los Angeles.

February 4, 1992 — Sorensen Park, 11419 Rosehedge Drive, Whittier.

February 5, 1992 — Sanitation Districts offices, 1955 Workman Mill Rd., Whittier.

February 6, 1992 — Topanga School, 141 North Topanga Boulevard, Topanga.

Copies of these documents are available for review at the following locations:

Los Angeles County Department of Public Works, Waste Management Division, 900 South Fremont Avenue, Alhambra, Monday through Thursday from 7:00 a.m. to 5:30 p.m. and All Los Angeles County Public Libraries. Check the telephone listings for the County Library nearest you.

If you have any questions, please call the Los Angeles County Department of Public Works, Recycling Hotline at 1-800-552-5218, Monday through Thursday, 7:00 a.m. to 5:30 p.m.

Si no entiende esta noticia o necesita mas informacion favor llame a este numero 1-800-552-5218, de lunes a jueves de 7:00 a.m.-5:30 p.m.

Publish in Newhall Signal and Saugus Enterprise February 1, 1992.

PROOF OF PUBLICATION

(2015.5 C.C.P.)

STATE OF CALIFORNIA

County of Los Angeles,

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of the THE DAILY BREEZE

a newspaper of general circulation, printed and published

DAILY

in the City of Torrance

County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of

June 10, 1974

Case Number SWC7146;

that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

Jan 18

all in the year 19 92

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Torrance

California, this 22 day of Jan, 19 92

Raelyn Morgan

Signature

Daily Breeze

5215 TORRANCE BLVD. • TORRANCE, CALIFORNIA 90509
(213) 540-5511, 772-6281

Copley LOS ANGELES Newspapers

This space is for the County Clerk's Filing Stamp

Proof of Publication of

DB CAL G168952
PUBLIC NOTICE

The Los Angeles County Department of Public Works is holding a series of pub information meetings to receive comments on the Los Angeles County Prelimin Draft Source Reduction and Recycling Element, Preliminary Draft Household H ardous Waste Element, and Draft Negative Declaration.

The Source Reduction and Recycling Element discusses the programs that will implemented by the County to reduce, reuse, or recycle as much material as possi that is currently being sent to landfills. The Household Hazardous Waste Elem discusses the programs that will be implemented to provide proper collection a disposal of household hazardous waste. The Negative Declaration document discus the impacts the proposed programs will have on the environment.

The meetings will held from 7:30 p.m. to 9:00 p.m. at the places and dates indicat below:

January 21, 1992	Stimson Park, 1545 South Stimson Avenue, Hacienda Height
January 22, 1992	Tamarisk Elementary School, 1843 E. Ave. Q-5, Palmdale
January 23, 1992	Loma Alta Park, 3330 North Lincoln Ave., Altadena
January 28, 1992	F. D. Roosevelt Park, 7600 Graham Avenue, Los Angeles
January 29, 1992	Pine Tree Elementary School, 29156 Lotus Garden, Canyon Country
January 30, 1992	Burton Chace Park, 13650 Mindanao Way, Marina del Rey
February 3, 1992	Griffith Jr. High School, 4765 East 4th Street, Los Angeles
February 4, 1992	Sorensen Park, 11419 Rosehedge Drive, Whittier
February 5, 1992	Sanitation Districts Offices, 1955 Workman Mill Rd., Whittie
February 6, 1992	Topanga School, 141 North Topanga Boulevard, Topanga

Copies of these documents are available for review at the following locations:

Los Angeles County Department of Public Works
Waste Management Division
900 South Freemont Avenue, Alhambra
Monday through Thursday from 7:00 a.m. to 5:30 p.m.
and
All Los Angeles County Public Libraries
Check the telephone listings for the County Library nearest you.

If you have any questions, please call the Los Angeles County Department of Publ Works, Recycling Hotline at 1-800-552-5218, Monday through Thursday, 7:00 a.m. 5:30 p.m.

Si no entiende esta noticia o necesita mas informacion favor llame a este numer 1-800-552-5218, de lunes a jueves de 7:00 a.m.-5:30 p.m.

Pub.: January 18, 1992.

PROOF OF PUBLICATION

(2015.5 C.C.P.)

STATE OF CALIFORNIA

County of Los Angeles,

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of the THE DAILY BREEZE

a newspaper of general circulation, printed and published

DAILY

in the City of Torrance

County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of

June 10, 1974

Case Number SWC7146;

that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

Jan 25

all in the year 1992

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Torrance

California, this 27 day of Jan, 1992

Signature

Daily Breeze

5215 TORRANCE BLVD. • TORRANCE, CALIFORNIA 90509
(213) 540-5511, 772-6281

Copley LOS ANGELES Newspapers

This space is for the County Clerk's Filing Stamp

Proof of Publication of

DB CAL G169170
PUBLIC NOTICE

The Los Angeles County Department of Public Works is holding a series of pu information meetings to receive comments on the Los Angeles County Prelimir Draft Source Reduction and Recycling Element, Preliminary Draft Household I ardous Waste Element, and Draft Negative Declaration.

The Source Reduction and Recycling Element discusses the programs that wil implemented by the County to reduce, reuse, or recycle as much material as poss that is currently being sent to landfills. The Household Hazardous Waste Elen discusses the programs that will be implemented to provide proper collection disposal of household hazardous waste. The Negative Declaration document discu the impact the proposed programs will have on the environment.

The meeting will be held from 7:30 p.m. to 9:00 p.m. at the places and d indicated below:

January 28, 1992	F. D. Roosevelt Park, 7600 Graham Avenue, Los Angeles
January 29, 1992	Pine Tree Elementary School, 29156 Lotus Garden, Canyon Country
January 30, 1992	Burton Chace Park, 13650 Mindanao Way, Marina del Rey
February 3, 1992	Griffith Jr. High School, 4765 East 4th Street, Los Angeles
February 4, 1992	Sorensen Park, 11419 Rosehedge Drive, Whittier
February 5, 1992	Sanitation Districts Offices, 1955 Workman Mill Rd., Whittier
February 6, 1992	Topanga School, 141 North Topanga Boulevard, Topanga

Copies of these documents are available for review at the following locations:

Los Angeles County Department of Public Works
Waste Management Division
900 South Freemont Avenue, Alhambra
Monday through Thursday from 7:00 a.m. to 5:30 p.m.
and
All Los Angeles County Public Libraries
Check the telephone listings for the County Library nearest you.

If you have any questions, please call the Los Angeles County Department of Pu Works, Recycling Hotline at 1-800-552-5218, Monday through Thursday, 7:00 a.n 5:30 p.m.

Si no entiende esta noticia o necesita mas informacion favor llame a este nur 1-800-552-5218, de lunes a jueves de 7:00 a.m.-5:30 p.m.

Pub.: January 25, 1992.

PROOF OF PUBLICATION

(2015.5 C.C.P.)

STATE OF CALIFORNIA

County of Los Angeles,

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of the THE DAILY BREEZE

a newspaper of general circulation, printed and published

DAILY

in the City of Torrance

County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of

June 10, 1974

Case Number SWC7146;

that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

Feb 1

all in the year 1992

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Torrance

California, this 3 day of Feb, 1992

Signature

Daily Breeze

5215 TORRANCE BLVD. • TORRANCE, CALIFORNIA 90509
(213) 540-5511, 772-6281

Copley LOS ANGELES Newspapers

This space is for the County Clerk's Filing Stamp

Proof of Publication of

DB CAL G169643
PUBLIC NOTICE

The Los Angeles County Department of Public Works is holding a series of pub information meetings to receive comments on the Los Angeles County Prelimina Draft Source Reduction and Recycling Element, Preliminary Draft Household Ha ardous Waste Element, and Draft Negative Declaration.

The Source Reduction and Recycling Element discusses the programs that will implemented by the County to reduce, reuse, or recycle as much material as possit that is currently being sent to landfills. The Household Hazardous Waste Eleme discusses the programs that will be implemented to provide proper collection a disposal of household hazardous waste. The Negative Declaration document discuss the impact the proposed programs will have on the environment.

The meeting will be held from 7:30 p.m. to 9:00 p.m. at the places and dat indicated below:

February 3, 1992 Griffith Jr. High School, 4765 East 4th Street, Los Angeles
February 4, 1992 Sorensen Park, 11419 Rosehedge Drive, Whittier
February 5, 1992 Sanitation Districts Offices, 1955 Workman Mill Rd., Whittier
February 6, 1992 Topanga School, 141 North Topanga Boulevard, Topanga

Copies of these documents are available for review at the following locations:

Los Angeles County Department of Public Works
Waste Management Division
900 South Freemont Avenue, Alhambra
Monday through Thursday from 7:00 a.m. to 5:30 p.m.
and
All Los Angeles County Public Libraries
Check the telephone listings for the County Library nearest you.

If you have any questions, please call the Los Angeles County Department of Publ Works, Recycling Hotline at 1-800-552-5218, Monday through Thursday, 7:00 a.m. 5:30 p.m.

Si no entiende esta noticia o necesita mas informacion favor llame a este nume 1-800-552-5218, de lunes a jueves de 7:00 a.m.-5:30 p.m.

Pub.: February 1, 1992.

PROOF OF PUBLICATION
(2015.5 C.C.P.)

STATE OF CALIFORNIA,
COUNTY OF LOS ANGELES.

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of LA OPINION a newspaper of general circulation, printed and published daily in the City of Los Angeles, County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of June 23rd, 1969, Case Number: 950 176; that the Notice, of which the annexed is a printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

January 18,

all in the year 19 92 .

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Los Angeles, California, this

18th day of January , 19 92 .

Adriana Pelayo
Signature

LA OPINION
The Leading Spanish Language Daily Newspaper

411 W. 5th Street
Los Angeles, California 90013
Tel.#213/896-2272 • Fax#213/896-2238

AVISO PUBLICO

El Departamento de Obras Públicas del Condado de Los Angeles efectuará una serie de reuniones informativas, abiertas al público, con el propósito de recibir comentarios sobre los siguientes proyectos, o borradores, propuestos por el condado de Los Angeles: "Borrador preliminar del elemento de reducción de fuentes y reciclaje," "Borrador preliminar del elemento de desechos caseros peligrosos" y el "Borrador de declaración negativa."

"El elemento de reducción de fuentes y reciclaje" examina los programas que instituirá el condado para reducir, reutilizar o reciclar la mayor cantidad posible de los materiales que en la actualidad se envían a los basureros. "El elemento desechos caseros peligrosos" examina los programas que se instituirán para establecer la recolección y disposición apropiada de los desechos caseros peligrosos. La "Declaración negativa" examina los impactos que los programas propuestos tendrán sobre el medio ambiente.

Las reuniones se celebrarán de 7:30 p.m a 9:00 p.m. en los lugares y fechas indicados a continuación:

Enero 21, 1992. Parque Stimson
1545 South Stimson Ave., Hacienda Heights

Enero 22, 1992. Escuela elemental Tamarisk
1643 E. Ave., Q-6, Palmdale

Enero 23, 1992. Parque Loma Alta
3330 North Linclon Ave., Altadena

Enero 28, 1992. Parque F.D. Roosevelt
7600 Graham Avenue, Los Angeles

Enero 29, 1992. Escuela El. Pine Tree
29158 Lotus Garden, Canyon County

Enero 30, 1992. Parque Burton Chase
13650 Hindanao Way, Marina Del Rey

Febrero 3, 1992. Escuela secundaria Griffith
4755 East 4th Street, Los Angeles

Febrero 4, 1992. Parque Sorensen
11419 Roseshedge Drive, Whittier

Febrero 5, 1992. Oficinas de salubridad del distrito
1955 Workman Mill Rd., Whittier

Febrero 6, 1992. Escuela Topanga
141 North Topanga Boulevard, Topanga

Se pueden revisar copias de estos documentos en los siguientes lugares:
Departamento de Obras Públicas del condado de Los Angeles
Waste Management Division
900 South Fremont Avenue, Alhambra
De lunes a jueves, de 7 a.m. a 5:30 p.m.
y en todas las bibliotecas públicas del condado de Los Angeles.

Vea en su guía telefónica la biblioteca pública más cercana de su casa.

Para información adicional, por favor llame al Departamento de Obras Públicas dl Condado de Los Angeles, línea directa de reciclaje: 1-800-552-5218, de lunes a jueves, 7 a.m. a 5:30 p.m.

PROOF OF PUBLICATION
(2015.5 C.C.P.)

STATE OF CALIFORNIA,
COUNTY OF LOS ANGELES.

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of LA OPINION a newspaper of general circulation, printed and published daily in the City of Los Angeles, County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of June 23rd, 1969, Case Number: 950 176; that the Notice, of which the annexed is a printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

January 25,

all in the year 19 92.

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Los Angeles, California, this

25th day of January, 19 92.

Adriana Pelayo
Signature

LA OPINION
The Leading Spanish Language Daily Newspaper

411 W. 5th Street
Los Angeles, California 90013
Tel.#213/896-2272 • Fax#213/896-2238

This space is for the County Clerk's Filing Stamp

AVISO PUBLICO

El Departamento de Obras Públicas del Condado de Los Angeles efectuará una serie de reuniones informativas, abiertas al público, con el propósito de recibir comentarios sobre los siguientes proyectos, o borradores, propuestos por el condado de Los Angeles: "Borrador preliminar del elemento de reducción de fuentes y reciclaje," "Borrador preliminar del elemento de desechos caseros peligrosos" y el "Borrador de declaración negativa."

"El elemento de reducción de fuentes y reciclaje" examina los programas que instituirá el condado para reducir, reutilizar o reciclar la mayor cantidad posible de los materiales que en la actualidad se envían a los basureros. "El elemento desechos caseros peligrosos" examina los programas que se instituirán para establecer la recolección y disposición apropiada de los desechos caseros peligrosos. La "Declaración negativa" examina los impactos que los programas propuestos tendrán sobre el medio ambiente.

Las reuniones se celebrarán de 7:30 p.m a 9:00 p.m. en los lugares y fechas indicados a continuación:

Enero 28, 1992. Parque F.D. Roosevelt
7600 Graham Avenue, Los Angeles

Enero 29, 1992. Escuela El. Pine Tree
29158 Lotus Garden, Canyon County

Enero 30, 1992. Parque Burton Chase
13650 Hindanao Way, Marina Del Rey

Febrero 3, 1992. Escuela secundaria Griffith
4765 East 4th Street, Los Angeles

Febrero 4, 1992. Parque Sorensen
11419 Roseshedge Drive, Whittier

Febrero 5, 1992. Oficinas de salubridad del distrito
1955 Workman Mill Rd., Whittier

Febrero 6, 1992. Escuela Topanga
141 North Topanga Boulevard, Topanga

Se pueden revisar copias de estos documentos en los siguientes lugares:
Departamento de Obras Públicas del condado de Los Angeles
Waste Management Division
900 South Fremont Avenue, Alhambra
De lunes a jueves, de 7 a.m. a 5:30 p.m.
y en todas las bibliotecas públicas del condado de Los Angeles.

Vea en su guía telefónica la biblioteca pública más cercana de su casa.

Para información adicional, por favor llame al Departamento de Obras Públicas dl Condado de Los Angeles, línea directa de reciclaje: 1-800-552-5218, de lunes a jueves, 7 a.m. a 5:30 p.m.

PROOF OF PUBLICATION
(2015.5 C.C.P.)

STATE OF CALIFORNIA,
COUNTY OF LOS ANGELES.

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of LA OPINION a newspaper of general circulation, printed and published daily in the City of Los Angeles, County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of June 23rd, 1969, Case Number: 950 176; that the Notice, of which the annexed is a printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

February 01,

all in the year 19 92.

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Los Angeles, California, this

01st day of February, 19 92.

Adriana Pelayo
Signature

LA OPINION
The Leading Spanish Language Daily Newspaper

411 W. 5th Street
Los Angeles, California 90013
Tel.#213/896-2272 • Fax#213/896-2238

This space is for the County Clerk's Filing Stamp

Proof o

AVISO PUBLICO

El Departamento de Obras Públicas del Condado de Los Angeles efectuará una serie de reuniones informativas, abiertas al público, con el propósito de recibir comentarios sobre los siguientes proyectos, o borradores, propuestos por el condado de Los Angeles: "Borrador preliminar del elemento de reducción de fuentes y reciclaje," "Borrador preliminar del elemento de desechos caseros peligrosos" y el "Borrador de declaración negativa."

"El elemento de reducción de fuentes y reciclaje" examina los programas que instituirá el condado para reducir, reutilizar o reciclar la mayor cantidad posible de los materiales que en la actualidad se envían a los basureros. "El elemento desechos caseros peligrosos" examina los programas que se instituirán para establecer la recolección y disposición apropiada de los desechos caseros peligrosos. La "Declaración negativa" examina los impactos que los programas propuestos tendrán sobre el medio ambiente.

Las reuniones se celebrarán de 7:30 p.m a 9:00 p.m. en los lugares y fechas indicados a continuación:

Febrero 3, 1992. Escuela secundaria Griffith
4765 East 4th Street, Los Angeles

Febrero 4, 1992. Parque Sorensen
11419 Roseshedge Drive, Whittier

Febrero 5, 1992. Oficinas de salubridad del distrito
1955 Workman Mill Rd., Whittier

Febrero 6, 1992. Escuela Topanga
141 North Topanga Boulevard, Topanga

Se pueden revisar copias de estos documentos en los siguientes lugares:
Departamento de Obras Públicas del condado de Los Angeles
Waste Management Division
900 South Fremont Avenue, Alhambra
De lunes a jueves, de 7 a.m. a 5:30 p.m.
y en todas las bibliotecas públicas del condado de Los Angeles.

Vea en su guía telefónica la biblioteca pública más cercana de su casa.

Para información adicional, por favor llame al Departamento de Obras Públicas dl Condado de Los Angeles, línea directa de reciclaje: 1-800-552-5218, de lunes a jueves, 7 a.m. a 5:30 p.m.