

VOLUME I

THE ELEMENT

LOS ANGELES COUNTY



**COUNTYWIDE
SITING
ELEMENT**

**VOLUME I -
THE ELEMENT**

Los Angeles

County

Department of

Public Works

Environmental

Programs Division

June 1997

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This Countywide Siting Element is the product of the efforts of many individuals dedicated to the well-being of the residents of the 88 cities and the unincorporated communities in Los Angeles County. The County of Los Angeles and the Los Angeles County Department of Public Works would like to thank them for all their help for which we are most grateful.

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SYSTEM FOR LOS ANGELES COUNTY" DATED SEPTEMBER 13, 1996
PREPARED BY GERSHMAN, BRICKNER, & BRATTON, INC. FOR THE
CITY OF SANTA CLARITA

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LIST OF ACRONYMS

A	Advisory Entity
AADT	Average Annual Daily Traffic
AB	Assembly Bill
AB 939	Assembly Bill 939, California Integrated Waste Management Act of 1989
ADC	Alternative Daily Cover
ADCMS	Alternative Daily Cover Materials
AQMD	Air Quality Management District
BACT	Best Available Control Technology
BFI, Inc.	Browning - Ferris Industries, Inc.
BHTGS	Battelle High Throughput Gasification System
BIT	Biosolids Injection Technology
BLM	Bureau of Land Management
CAA	Federal Clean Air Act
CARB	California Air Resources Board
CALTRANS	California Department of Transportation
CCC	California Coastal Commission
CCR	California Code of Regulations
C&D	Construction and Demolition Waste
CDFG	California Department of Fish and Game
CDHS	California Department of Health Services
CDOF	California Department of Finance
CDTSC	California Department of Toxic Substances Control
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEPA	Campano Environmental Protection Agency

LIST OF ACRONYMS

CFR	Code of Federal Regulations
CIEC	Cement Industry Environmental Consortium
CIWMA	California Integrated Waste Management Act of 1989
CIWMB	California Integrated Waste Management Board
COE	United States Army Corps of Engineers
COG	Council of Governments
CoIWMP	Countywide Integrated Waste Management Plan
CoSWMP	County Solid Waste Management Plan
CREF	Commerce Refuse-to-Energy Facility
CRWQCB	California Regional Water Quality Control Board
CSD	County Sanitation Districts of Los Angeles County
CSE	Countywide Siting Element
CSP	Countywide Summary Plan
CUP	Conditional Use Permit
CWA	Federal Clean Water Act
CWMB	California Waste Management Board (Replaced by the CIWMB)
DHS	Los Angeles County Department of Health Services (see LACoDHS)
DPW	Los Angeles County Department of Public Works (see LACoDWP)
ECDC	East Carbon Development Corporation
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPA	United States Environmental Protection Agency
EPI	Energy Products of Idaho
EPRI	Electric Power Research Institute
FBC	Fluidized Bed Combustion

LIST OF ACRONYMS

FOC	Finding of Conformance
HCL	Hydrochloric Acid
HHW	Household Hazardous Waste
HHWE	Household Hazardous Waste Element
HPS	Hot Pneumatic Separator
L	Lead Entity
LACo	Los Angeles County
LACoDHS	Los Angeles County Department of Health Services
LACoDPW	Los Angeles County Department of Public Works
LACSD	County Sanitation Districts of Los Angeles County
LAER	Lowest Achievable Emission Rate
LEA	Local Enforcement Agency
LTF	Local Task Force
LUP	Land Use Permit
MACT	Maximum Achievable Control Technology
MRF	Materials Recovery Facility
MSW	Municipal Solid Waste
MSWLF	Municipal Solid Waste Landfill
MTCI	The Manufacturing and Technology Conversion International, Inc.,
MW	Megawatts
NAAQS	National Ambient Air Quality Standards
NDFE	Nondisposal Facility Element
NIOSH	National Pollutant Discharge Elimination System
NOP	Notice of Preparation
NPDES	National Pollution Discharge Elimination System

LIST OF ACRONYMS

NPS	National Park Service
NSPS	New Source Performance Standards
PARF	Plasma Application Research Facility
PI	Private Industry
PPM	Parts per Million
PRC	California Public Resources Code
PSD	Prevention of Significant Deterioration
PURPA	Public Utility Regulatory Act
RCBC	Rotary Cascading Bed Combustion
RCRA	Resource Conservation and Recovery Act
RDF	Refuse Derived Fuel
RWQCB	Regional Water Quality Control Board
S	Support Entity
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SDOHS	State Department of Health Services
SERRF	Southeast Resource and Recovery Facility
SNCR	Selective Non-Catalytic Reduction
SIC	Standard Industrial Code
SRRE	Source Reduction and Recycling Element
SWANA	The Solid Waste Association of North America
SWF	Solid Waste Facility
SWFP	Solid Waste Facility Permit

LIST OF ACRONYMS

SWRCB	State Water Resources Control Board
T-BACT	Best Available Control Technology for Toxics
TPD	Tons Per Day
TF	Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force
TPD	Tons per Day
TPS	Termiska Processer of Sweden
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
WDRs	Waste Discharge Requirements
WTE	Waste-to-Energy (Transformation)
WTPD	Wet Tons Per Day

GLOSSARY OF TERMS

Action Plan - The Los Angeles County Solid Waste Management Action Plan, adopted by the Los Angeles County Board of Supervisors in April 1988, the County Sanitation Districts of Los Angeles County in May 1988, and the City of Los Angeles Board of Public Works. It provides policies and strategies for the integrated management of solid waste in the County.

Aerobic Process - A decomposition process occurring in the presence of free oxygen.

Alternative Daily Cover - Suitable materials other than soil (approved by the LEA and concurred by the CIWMB) that is spread and compacted on the entire surface of the active face of the sanitary landfill at least at the end of each operating day in order to control odor, vectors, fire, water infiltration, erosion, litter and to prevent unsightliness. [see Sections 18801(2), 17225.16 and 17683, Title 14 of the CCR]

Anaerobic Process - A decomposition process occurring in the absence of free oxygen.

Asbestos - Fibrous forms of various hydrated minerals, including chrysotile (fibrous serpentine), crocidolite (fibrous reibeckite), amosite (fibrous cummingtonite-grunertite), fibrous tremolite, fibrous actinolite, and fibrous anthophyllite.

Ash - The residue from the transformation of solid waste.

Baling - The process of compressing and binding solid wastes. [see Section 17225.6, Title 14 of the CCR]

Biomass - Defined in Section 25143.5(f)(2) of the Health and Safety Code as "any organic material not derived from fossil fuels, such as agricultural crop residues, bark, lawn, yard and garden clippings, leaves, silvicultural residue, tree and brush pruning, wood and wood chips, and wood waste, including these materials when separated from other waste streams. 'Biomass' or 'biomass waste' does not include material containing sewage sludge, industrial sludge, medical waste, hazardous waste, or radioactive waste."

Biomass Conversion - The controlled combustion, when separated from other solid waste and used for producing electricity or heat, of the following materials: (1) agricultural crop residues, (2) bark, lawn, yard and grass clippings, (3) leaves, agricultural residue, and tree and brush pruning, (4) wood, wood chips, and wood waste. "Biomass Conversion" does not include the controlled combustion of pulp or paper materials, or materials which contain sewage sludge, industrial sludge, medical waste, hazardous waste, or either high-level or low-level radioactive waste.

Capital Costs - Those direct costs incurred in order to acquire real property assets such as land, buildings and building additions; site improvements; machinery; and equipment.

Class III Landfill - Those facilities which must be located where site characteristics provide adequate separation between nonhazardous solid waste and waters of the State. "Class III Landfills" must meet the requirements of the Federal Resource Conservation and Recovery Act, Subtitle D, and the CCR, Title 23, Section 2533, as well as those mandated by Sections 17000 et seq., of Title 14 of the CCR and other regional and local rules and regulations. [see Section 2533, Title 23 of the CCR]

Compost - Defined in Section 40116 of the PRC as "the product resulting from the controlled biological decomposition of organic wastes that are source separated from the municipal solid waste stream, or which are separated at a centralized facility. 'Compost' includes vegetable, yard, and wood wastes which are not hazardous waste."

Composting - Defined in Section 17225.14, Title 14 of the CCR as "a controlled microbial degradation of organic wastes yielding a safe and nuisance free product."

Composting Facility - A permitted solid waste facility at which composting is conducted and which produces a product meeting the above definition of "compost." [see Section 17852(m), Title 14 of the CCR]

County - The County of Los Angeles.

County Solid Waste Management Plan - A planning document which provides for solid waste disposal management on a Countywide basis prepared pursuant to the requirements of the California Solid Waste Management and Resource Recovery Act of 1972, initially adopted by the Board of Supervisors in June 1976, and approved by the California Waste Management Board in December 1977. Solid waste planning activities in Los Angeles County are currently governed by the existing Los Angeles County Solid Waste Management Plan (CoSWMP) (March 1984) and Revision A (August 1985) which received approval by the majority of the Cities in Los Angeles County containing a majority of the incorporated population and the County Board of Supervisors, was approved by the former California Waste Management Board in March 1986. As required by AB 939, the CoSWMP will be superseded by the Countywide Integrated Waste Management Plan (CoIWMP) upon its preparation and approval by the Cities in Los Angeles County, the County Board of Supervisors, and the California Integrated Waste Management Board.

Countywide - Pertaining to all of Los Angeles County, including all the cities and the unincorporated areas of the County.

Countywide Integrated Waste Management Plan (CoIWMP) - A planning document required by the California Integrated Waste Management Act of 1989 (AB 939), as amended (Section 40000 et seq. of the PRC). The CoIWMP is prepared by the County and includes all jurisdictions' SRREs, HHWEs, NDFEs, the CSE, and the Summary Plan.

Countywide Siting Element (CSE) - A planning document required by the California Integrated Waste Management Act of 1989 (AB 939), as amended (Section 40000 et seq. of the PRC). The CSE is prepared by the County and identifies how the County and the Cities within the County will address the need for 15 years of disposal/transformation capacity to safely handle solid waste generated in the county which cannot be reduced or recycled.

Decomposition Process - The chemical and/or microbiological degradation of solid waste.

Disposal - Defined in Section 40192 of the PRC as "(a) Except as provided in subdivisions (b) and (c), 'solid waste disposal' or 'disposal' means the final deposition of solid wastes onto land, into the atmosphere, or into the waters of the state. (b) Except as provided in Part 2 (commencing with Section 40900), for purposes of Part 2 (commencing with Section 40900), 'disposal' means the management of solid waste through landfill disposal or transformation at a permitted solid waste facility. (c) For purposes of Chapters 16 (commencing with Section 42800) and 19 (commencing with Section 42950) of Part 3, Part 4 (commencing with Section 43000), Part 5 (commencing with Section 45000), Part 6 (commencing with Section 45030), and Chapter 2 (commencing with Section 47900) of Part 7, 'solid waste disposal' or 'disposal' means the final deposition of solid wastes onto land."

Disposal Capacity - Defined in Section 18720(18), Title 14 of the CCR as "the capacity, expressed in either weight in tons or its volumetric equivalent in cubic yards, which is either currently available at a permitted solid waste landfill, or will be needed for the disposal of solid waste generated within the jurisdiction over a specified period of time." See also "Maximum Permitted Daily Capacity" and "Permitted Disposal Capacity."

Disposal Facility - Defined in Section 40121 of the PRC as "any facility or location where disposal of solid waste occurs."

Disposal Site - Defined in Section 40122 of the PRC as "the place, location, tract of land, area, or premises in use, intended to be used, or which has been used, for the landfill disposal of solid wastes. 'Disposal site' includes solid waste landfill, as defined in Section 40195.1."

Disposal Site Owner - The person who holds title to the property used as a disposal site.

Earthquake - A sudden movement of the earth's crust, caused by the release of stress accumulated along geologic faults or by volcanic activity.

Energy Recovery - A form of resource recovery in which the organic fraction of waste is converted via combustion, pyrolysis, anaerobic digestion, or other process to some form of usable energy.

Expansion of an Existing Landfill Site - An increase in the physical dimension of a solid waste landfill, or an extension or renewal of a permit whose expiration date may effect the operation of the facility. A physical expansion may be vertical by increasing the permitted elevation to which solid waste may be disposed and/or horizontal by increasing the permitted boundary in which solid waste may be disposed to areas contiguous or adjacent to the area of the existing operation.

Flue - Any duct or passage for air, gases, or the like, such as a stack or chimney.

Garbage - Includes all kitchen and table food waste, and animal or vegetable waste that attends or results from the storage, preparation, cooking or handling of food stuffs. (Garbage in other California codes is inclusive with refuse, trash, rubbish and related solid waste).

Gasification - The partial combustion of solid waste under substoichiometric conditions to generate a combustible gas containing carbon monoxide, hydrogen, and gaseous hydrocarbons.

Geosynthetic Membrane - Defined in Section 17761(26), Title 14 of the CCR as “any man-made material that functions as a impermeable barrier to transmission of fluids.”

Green waste - See “Yard Waste.”

Hazard - Any condition, practice, or procedure which is or may be dangerous, harmful, or perilous to employees, property, neighbors, or the general public.

Hazardous Waste - Defined in Section 40141 of the PRC as “(a) a waste, or combination of wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may do either of the following: (1) Cause , or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness. (2) Pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported, or disposed of, or otherwise managed. (b) Unless expressly provided otherwise, ‘hazardous waste’ includes extremely hazardous waste and acutely hazardous waste.”

Household Hazardous Waste Element - A planning document required by the California Integrated Waste Management Act of 1989 (AB 939), as amended (Section 40000 et seq. of the PRC), prepared by each county and city in the State to identify how the local jurisdiction will provide for the management of Household Hazardous Waste (HHW) generated by the residents of the jurisdiction.

Incineration - The controlled process by which solid, liquid or gaseous combustible wastes are burned and changed into gases, and the residue produced contains little or no combustible material.

Inert Solids or Inert Waste - Defined in Section 18720(30), Title 14 of the CCR as “a non-liquid solid waste including, but, not limited to, soil and concrete, that does not contain hazardous waste of soluble pollutants at concentrations in excess of water-quality objectives established by a regional water board pursuant to division 7 (commencing with Section 13000) of the California Water Code and does not contain significant quantities of decomposable solid waste.”

Inert Waste Landfill - See “Unclassified Landfill.”

Integrated Waste Management Task Force - Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force.

Intermodal Facility - A facility which has the capability of loading or unloading intermodal containers from trucks to rail cars or vice-versa.

Jurisdiction - An administrative subdivision of the State, either a city incorporated by charter or general law, or a county, having governmental authority or control within its political boundaries.

Landfill - See “Solid Waste Landfill.”

Landfill Gas - Gas generated by the natural aerobic and/or anaerobic decomposition of municipal solid waste in sanitary landfills.

Leachate - Liquid that has come in contact with or percolated through waste materials and has extracted or dissolved substances therefrom.

Local Enforcement Agency - An enforcement agency with California Integrated Waste Management Board certification(s) totally separate from the operating unit(s) of the local governing body. An "Local Enforcement Agency" is a comprehensive solid waste management agency which performs enforcement, inspection, and permitting duties for handling permitted, closed, abandoned, exempt, illegal, and inactive facilities. A "Local Enforcement Agency" is solely responsible for carrying out solid waste management in its jurisdiction as defined in 14 CCR 17225.70 and Division 30 of the PRC. Upon certification(s) the "Local Enforcement Agency" becomes an agent of the State. [see Section 18011(14), Title 14 of the CCR]

Local Governing Body - The legislative body of the city, county, or special district which has authority to provide solid waste handling services.

Major Landfill - A permitted solid waste landfill which receives more than 250,000 tons of solid waste per year (or 800 tons per day, six days per week).

Materials Recovery Facility (MRF) - Defined in Section 18720(36), Title 14 of the CCR as "a permitted solid waste facility where solid wastes or recyclable materials are sorted or separated, by hand or by use of machinery, for the purposes of recycling or composting."

Maximum Permitted Daily Capacity - The daily quantity of waste (in tons and/or cubic yards) which a permitted landfill or permitted transformation facility is allowed to receive in accordance with the terms, conditions, and limitations of the facility's current Solid Waste Facility Permit, Land Use/Conditional Use Permit, Waste Discharge Requirements permit, or the Permit to Operate, whichever is less.

Minor Landfill - A permitted solid waste landfill which receives less than 250,000 tons of solid waste per year (or 800 tons per day, six days per week).

Municipal Solid Waste - All solid wastes generated by residential, commercial, and industrial sources, and all solid waste generated at construction and demolition sites, at food-processing facilities, and at treatment works for water and wastewater, which are collected and transported under the authorization of a jurisdiction or are self-hauled. Municipal solid waste does not include agricultural crops residues, animal manures, mining waste and fuel extraction waste, forestry wastes, and ash from industrial boilers, furnaces, and incinerators. [see Section 18720(40), Title 14 of the CCR]

Nondisposal Facility - Any solid waste facility required to obtain a Solid Waste Facility Permit pursuant to Sections 44001-44018 of the PRC, except a solid waste landfill or a transformation facility.

Nondisposal Facility Element - A planning document required by the California Integrated Waste Management Act of 1989 (AB 939), as amended (Section 40000 et seq. of the PRC), to be prepared by each county and city in the State to identify all existing, expansions of existing, and proposed new nondisposal facilities which will be needed to implement local jurisdictions' Source Reduction and Recycling Elements (SRREs).

Operator - The person to whom the approval to operate a solid waste landfill, transformation facility, transfer or processing station, or collection system is granted.

Permitted Capacity - See "Permitted Disposal Capacity."

Permitted Disposal Capacity - The total quantity of solid waste (in cubic yards and/or tons) which a permitted landfill or permitted transformation facility is allowed to receive in accordance with, the terms, conditions, and limitations of the facility's current Solid Waste Facility Permit, Land Use Permit/Conditional Use Permit, Waste Discharge Requirements Permit, and the Permit to Operate, whichever is less. [see Section 18720(49), Title 14 of the CCR]

Permitted Landfill - See "Permitted Solid Waste Landfill."

Permitted Solid Waste Landfill - For the purpose of the CSE and in concert with the requirements of Section 18720(50), Title 14 of the CCR, a solid waste landfill facility for which there exists 1) a current Solid Waste Facility Permit issued by the Local Enforcement Agency and concurred by the California Integrated Waste Management Board, 2) a Land Use Permit/Conditional Use Permit issued by the local jurisdiction's land use authority, and, when applicable, 3) a Waste Discharge Requirements permit issued by the appropriate California Regional Water Quality Control Board.

Permitted Solid Waste Facility - Defined in Section 18720(51), Title 14 of the CCR as "a solid waste facility for which there exists a Solid Waste Facilities Permit issued by the local enforcement agency and concurred in by the California Integrated Waste Management Board, or which is permitted under the regulatory scheme of another state."

Permitted Transformation Facility - A transformation facility for which there exists 1) a current Solid Waste Facility Permit issued by the Local Enforcement Agency and concurred by the California Integrated Waste Management Board, 2) a Land Use Permit/Conditional Use Permit issued by the local jurisdiction's land use authority, 3) a Permit to Operate issued by the local Air Quality Management/Air Quality Pollution Control District, and, if applicable, 4) a Waste Discharge Requirements permit issued by the appropriate California Regional Water Quality Control Board. See also "Transformation Facility."

Planning Period - The period beginning in the year 1995 and ending in the year 2010.

Pollution - The condition caused by the presence in or on a body of water, soil, or air of any solid waste or substance derived in such quantity, of such nature and duration, or under such condition that the quality, appearance, or usefulness of the water, soil, land, or air is significantly degraded or adversely altered.

Potential Site - An area where disposal of solid waste may be feasible subject to siting criteria such as geological and hydrological compatibility, land use compatibility, proximity to environmentally sensitive areas, and other factors.

Processing - The reduction, separation, recovery, conversion, or recycling of solid waste.

Processing Station - See "Transfer or Processing Station."

Public Utility Regulation and Policy Act (PURPA), 1981 - A congressional law that, among its statutes, directs public and private utilities to purchase power from waste-to-energy facilities.

Putrescible Solid Waste - Includes wastes that are capable of being decomposed by micro-organisms with sufficient rapidity as to cause nuisances because of odors, gases, or other offensive conditions, and include materials such as food wastes, offal, and dead animals.

Pyrolysis - The chemical decomposition of organic material achieved by heating in the absence or the near absence of oxygen.

Rail-Haul - The rail transportation of solid waste between a solid waste station with rail-loading capability and an out-of-County solid waste landfill and/or transformation facility.

Recycling - Defined in Section 40180 of the PRC as "the process of collecting, sorting, cleansing, treating, and reconstituting materials that would otherwise become solid waste, and returning them to the economic mainstream in the form of raw material for new, reused, or reconstituted products which meet the quality standards necessary to be used in the marketplace. 'Recycling' does not include transformation as defined in Section 40201."

Refuse - See "Solid Waste."

Refuse-Derived Fuel (RDF) - The combustible, or organic, fraction of municipal solid waste which has been prepared for use as a fuel by any of several mechanical processing methods.

Regional Water Board - A California Regional Water Quality Control Board.

Reserved Site - For the purpose of the CSE, an area identified for a potential new solid waste disposal facility and/or expansion of an existing solid waste disposal facility are considered "reserved" if: a) the local jurisdiction has made a specific determination that the proposed land use for a solid waste disposal site is consistent with its General Plan, or b) use of the area for a solid waste disposal site is listed among potential uses for the area in the local jurisdiction's General Plan.

Rubbish - Includes nonputrescible solid wastes such as ashes, paper, cardboard, tin cans, yard clippings, wood, glass, bedding, crockery, plastics, rubber by-products, or litter.

Salvage - The controlled removal of solid waste materials at a permitted solid waste facility for recycling, reuse, composting, or transformation.

Sanitary Landfill - See "Class III Landfill."

Seasonal - Pertaining to the periods of time during the calendar year which are identifiable by distinct cyclical patterns of local climate, demography, trade, or commerce.

Siting Element - See "Countywide Siting Element."

Solid Waste - Defined in Section 40191 of the PRC as "(a) Except as provided in subdivision (b), 'solid waste' means all putrescible and nonputrescible solid, semisolid, and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, dewatered, treated, or chemically fixed sewage sludge which is not hazardous waste, manure, vegetable or animal solid and semisolid wastes, and other discarded solid and semisolid wastes. (b) 'Solid waste' does not include any of the following wastes: (1) Hazardous waste, as defined in Section 40141. (2) Radioactive waste regulated pursuant to the Radiation Control Law (Chapter 8 (commencing with Section 114960) of Part 9 of Division 104 of the Health and Safety Code). (3) Medical waste regulated pursuant to the Medical Waste Management Act (Part 14 (commencing with Section 117600) of Division 104 of the Health and Safety Code). Untreated medical waste shall not be disposed of in a solid waste landfill, as defined in Section 40195.1. Medical waste that has been treated and deemed to be solid waste shall be regulated pursuant to this division."

Solid Waste Disposal - Defined in Section 40192 of the PRC as "(a) Except as provided in subdivisions (b) and (c), 'solid waste disposal' or 'disposal' means the final deposition of solid wastes onto land, into the atmosphere, or into the waters of the state. (b) Except as provided in Part 2 (commencing with Section 40900), for purposes of Part 2 (commencing with Section 40900), 'disposal' means the management of solid waste through landfill disposal or transformation at a permitted solid waste facility. (c) For purposes of Chapters 16 (commencing with Section 42800) and 19 (commencing with Section 42950) of Part 3, Part 4 (commencing with Section 43000), Part 5 (commencing with Section 45000), Part 6 (commencing with Section 45030), and Chapter 2 (commencing with Section 47900) of Part 7, 'solid waste disposal' or 'disposal' means the final deposition of solid wastes onto land."

Solid Waste Disposal Facility - Defined in Section 40194 of the PRC as "a solid waste transfer or processing station, a composting facility, a transformation facility, and a disposal facility."

Solid Waste Facility - Defined in Section 40194 of the PRC as "a solid waste transfer or processing station, a composting facility, a transformation facility, and a solid waste landfill."

Solid Waste Landfill - A disposal facility that accepts solid waste for land disposal, but does not include a facility which receives only wastes generated by the facility owner or operator in the extraction, beneficiation, or processing of ores and minerals, or a cemetery which disposes onsite only the grass clippings, floral wastes, or soil resulting from activities on the grounds of that cemetery. "Solid Waste Landfill" includes Class III landfill and unclassified landfill. [see Section 40195.1 of the PRC]

Solid Waste Station - Includes transfer or processing stations, materials recovery facilities, and composting facilities as permitted by the applicable Local Enforcement Agency and/or the California Integrated Waste Management Board, and does not include disposal (landfill or transformation) facilities. [see Section 18801(13), Title 14 of the CCR]

Source Reduction and Recycling Element (SRRE) - A planning document required by the California Integrated Waste Management Act of 1989 (AB 939), as amended (Section 40000 et seq. of the PRC), to be prepared by every county and city in the State to identify how each jurisdiction will meet the mandatory waste diversion goals of 25 percent by 1995 and 50 percent by 2000.

State - The State of California.

State Water Board - The State Water Resources Control Board.

Subtitle D - A section of the Resource Conservation and Recovery Act of 1976, as amended, (40 CFR 258) which established minimum standards for a solid waste landfill development, operation, closure, and post-closure maintenance.

Summary Plan - A document required by the California Integrated Waste Management Act of 1989 (AB 939), as amended (Section 40000 et seq. of the PRC), to be prepared by each county agency of the State to identify the significant problems facing the county and the cities of the county; to provide an overview of the specific steps that will be taken by local agencies to achieve the purposes of AB939 as amended; to provide a statement of the goals and objectives set forth by the Task Force; to aggregate all the elements of the countywide solid waste management planning process; and to establish an administrative structure for preparing and maintaining the Summary Plan.

Task Force - Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force.

Tentatively Reserved Site - An area designated for a potential solid waste disposal facility for which the local jurisdiction has not made a determination of consistency with its General Plan.

Tipping Fee - The fee charged by solid waste facility operators for the disposal or transfer of solid waste at their facility.

Transfer or Processing Station - Defined in Section 40200 of the PRC as "(a) those facilities utilized to receive solid wastes, temporarily store, separate, convert, or otherwise process the materials in the solid wastes, or to transfer the solid wastes directly from smaller to larger vehicles for transport, and those facilities utilized for transformation. (b) 'Transfer or processing station' or 'station' does not include any of the following: (1) A facility, whose principal function is to receive, store, separate, convert, or otherwise process in accordance with state minimum standards, manure. (2) A facility, whose principal function is to receive, store, convert, or otherwise process wastes which have already been separated for reuse and are not intended for disposal. (3) The operations premises of a duly licensed solid waste handling operator who receives, stores, transfers, or otherwise processes wastes as an activity incidental to the conduct of a refuse collection and disposal business in accordance with regulations adopted pursuant to Section 43309."

Transformation - Defined in Section 40201 of the PRC as "incineration, pyrolysis, distillation, gasification, or biological conversion other than composting. 'Transformation' does not include composting or biomass conversion."

Transformation Facility - Defined in Section 18720(77), Title 14 of the CCR as “a facility whose principal function is to convert, combust, or otherwise process solid waste by incineration, pyrolysis, destructive distillation, or gasification, or to chemically or biologically process solid wastes, for the purpose of volume reduction, synthetic fuel production, or energy recovery. Transformation facility does not include a composting facility.” See also “Permitted Transformation Facility.”

Unclassified Landfill - A solid waste landfill which is permitted to accept inert waste only. Section 18700 of Title 14 and Section 2524 of Title 23 of the CCR define inert waste as that type of non-liquid solid waste which does not contain hazardous waste or soluble pollutants at concentrations in excess of applicable water quality objectives established by a California Regional Water Quality Control Board, and does not contain significant quantities of decomposable waste. Inert waste includes materials such as soil, concrete, asphalt, and other construction and demolition debris. “Unclassified Landfills” must be designed and operated in accordance with all laws and regulations mandated by State, regional, and local jurisdictions.

Volume - A three dimensional measurement of the capacity of a region of space or a container. Volume is commonly expressed in terms of cubic yards or cubic meters. Volume is not expressed in terms of mass or weight.

Waste-by-Rail - See “Rail-Haul.”

Waste Diversion - Activities which reduce or eliminate the amount of solid waste from solid waste disposal. [see Section 40124 of the PRC]

Wasteshed - A geographical area from which waste can logically be delivered to a given disposal facility. This term is synonymous with waste service area.

Wastestream - The total flow of solid waste from homes, businesses, institutions, and manufacturing plants that must be recycled, burned, or disposed of in landfill; or any segment thereof, such as the "residential wastestream" or the "recyclable wastestream."

Waste-to-Energy Facility - A transformation facility that engages in the cogeneration of electricity through the incineration or pyrolysis of solid waste. See also “Transformation Facility.”

Yard Waste - Any waste generated from the maintenance or alteration of residential landscapes including, but not limited to, yard clippings, leaves, tree trimmings, prunings, brush, weeds, and related materials which have been separated from other solid waste. Also called “Green Waste.”

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EXECUTIVE SUMMARY

ES-1 PROJECT BACKGROUND

The California Integrated Waste Management Act of 1989 (AB 939), as amended, Section 40000 et seq. of the Public Resources Code requires each county to prepare a countywide siting element which identifies how the county and the cities within the county will address the need for 15 years of disposal/transformation capacity to safely handle solid waste generated in the county which cannot be reduced, recycled, or composted. AB 939 recognizes that landfills and transformation facilities are necessary components of any integrated solid waste management system.

As mandated by AB 939, the County of Los Angeles Countywide Siting Element (CSE) establishes goals, policies, and guidelines for proper planning and siting of solid waste transformation and land disposal facilities on a Countywide basis. It offers strategies and establishes siting criteria to be used as an aid to evaluate sites proposed for development of needed solid waste transformation and land disposal facilities.

The CSE provides a description of the areas and strategies that may be used to address the State mandates for adequate transformation or disposal capacity during the 15-year planning period. The CSE serves as a policy manual rather than a specific development program. Definitive information can only be accomplished for specific sites and projects. As they develop, specific sites and projects must each fully comply with all requirements of the California Environmental Quality Act (CEQA), as well as compliance with all Federal, State and local rules and regulations including consistency with the local jurisdiction General Plan.

This summary is intended to provide only a brief background and overview of the CSE. The complete report should be consulted for a detailed analysis.

ES-2 COUNTYWIDE SITING ELEMENT APPROVAL

State law (Section 41721 of the California Public Resources Code) requires the CSE be "approved by the County and by a majority of the Cities within the County which contain a majority of the population of the incorporated area of the County." In addition to the local jurisdictions' approvals, the CSE must be reviewed and approved by the California Integrated Waste Management Board (CIWMB). Table ES-1 provides a summary of the CSE approval process as mandated by State law.

**Table ES-1
COUNTYWIDE SITING ELEMENT APPROVAL PROCESS**

1.	<p>Preparation of the Draft CSE</p> <p>The County shall prepare and submit the draft CSE and the necessary environmental document to the Cities, Task Force, appropriate governmental agencies, and public for a 45-day review period and must conduct public information meetings to insure public input.</p>
2.	<p>Preparation of the Final Draft CSE</p> <p>Based on the comments received on the draft CSE, the County shall prepare the final draft CSE and shall submit the document to the Cities for approval.</p>
3.	<p>Local Adoption of the Final Draft CSE</p> <p>a) Each City in the County, and the County Board of Supervisors, shall conduct a public hearing for the purpose of adopting the final draft CSE. After considering all comments of members of the governing body and the public, each jurisdiction shall, by resolution, either approve or disapprove the final draft CSE within 90 days of receipt of the final draft CSE from the County. Lack of action by a City within this 90-day period would constitute tacit approval by that City.</p> <p>b) If a jurisdiction disapproves final draft CSE, the jurisdiction shall give written notice to the Task Force, the County Board of Supervisors, and the California Integrated Waste Management Board (CIWMB) of the deficient areas in the final draft CSE within 30 days of disapproval.</p> <p>c) If the final draft CSE is not approved by a majority of the cities within the County which contain a majority of the population of the incorporated area, the County shall revise the deficient areas of the final draft CSE and recirculate it as required by Title 14, CCR, Sections 18779 through 18785.</p>
4.	<p>Submittal to the CIWMB</p> <p>Submittal of the final draft CSE. Upon approval of the final draft CSE, which has also been approved by a majority of the cities representing a majority of the County's incorporated population, the County shall, within 30 days of such approval, submit the following to the CIWMB:</p> <ul style="list-style-type: none"> a) three copies of the locally approved final draft CSE; b) a copy of each jurisdiction's resolution approving or disapproving the final draft CSE; c) a copy of the public notice for each jurisdiction's public hearing on the final draft CSE; d) a copy of the Notice of Determination for the project's California Environmental Quality Act document which has been filed with the State Clearinghouse in the Office of Planning and Research; and e) a tabulation showing that the final draft CSE were approved by a majority of the cities representing a majority of the population in the incorporated portion of the County.

Table ES-1 (continued)
COUNTYWIDE SITING ELEMENT APPROVAL PROCESS

5.	CIWMB Approval of the Final Draft CSE
a)	The CIWMB shall, within a timeframe of 90-120 days, review the final draft CSE, and at a public hearing determine whether it meets the requirements of the California Integrated Waste Management Act of 1989, as amended. After considering public testimony and input from the Task Force, the CIWMB shall either adopt a resolution approving the ColWMP, or issue a Notice of Deficiency to the County. Within 30 days of approval/disapproval, the CIWMB shall send a copy of the resolution of approval or a Notice of Deficiency to the County.
b)	If issued a Notice of Deficiency by the CIWMB, the County, pursuant to the requirements of the PRC, Section 41811 and 41812, and with Sections 18780 through 18784 of Title 14 of the CCR, shall revise the final draft CSE addressing deficiencies identified by the CIWMB, resubmit the document to the cities for local adoption, and resubmit the document to the CIWMB within 120 days.

ES-3 PURPOSE AND OBJECTIVES OF THE COUNTYWIDE SITING ELEMENT

In accordance with State law, the purpose of the CSE for the County of Los Angeles is to address the management of that portion of solid waste that remains after the 88 cities in Los Angeles County and the County unincorporated communities have completed their recycling, composting, and other waste diversion activities for each year of the 15-year planning period.

The objectives of the CSE are the goals and policies delineated in Chapter 2 of the CSE. The goals are as follows:

1. To protect the health, welfare, and safety of all citizens by addressing the disposal need of the 88 Cities and the County unincorporated communities in Los Angeles County during the 15-year planning period through development of environmentally safe and technically feasible disposal facilities for solid waste which cannot be reduced, recycled, or composted.

This goal incorporates policies to:

- Enhance in-County disposal capacity,
 - Facilitate utilization of out-of-County/remote disposal sites, and
2. To foster the development of transformation and other innovative solid waste disposal technologies as alternatives to land disposal.
 3. To protect the economic well-being of Los Angeles County by ensuring that the cities and the County unincorporated communities are served by an efficient and economical public/private solid waste disposal system.
 4. To provide siting criteria that considers and provides for the environmentally safe and technically feasible development of solid waste disposal facilities.
 5. To reduce the volume (tonnage) of solid waste requiring land disposal or transformation by continuing to implement and expand source reduction, recycling, composting, and public education programs.
 6. To conserve Class III landfill capacity through diversion of inert waste, disposal of inert waste at unclassified landfills, increased waste disposal compaction rate, and the use of green waste and other appropriate materials for landfill daily cover.
 7. To promote and encourage waste diversion activities at disposal facilities.
 8. To promote adequate markets for recycled materials and compost products.

ES-4 DESCRIPTION THE COUNTYWIDE SITING ELEMENT

The CSE is prepared by the staff of the Los Angeles County Department of Public Works under the auspices of the Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force (Task Force). The CSE is prepared pursuant to the statutory requirements for the content and format of the Countywide Siting Element found in the California Public Resources Code, Sections 41700-41721.5. These requirements are further clarified in regulations adopted by the CIWMB, and approved by the Office of Administrative Law, for the preparation of a Siting Element (California Code of Regulations, Title 14, Division 7, Chapter 7, Article 6.5, Sections 18755 through 18756.7).

The CSE addresses the above issues with the intent of providing a means for proper planning and siting of solid waste transformation and land disposal facilities on a Countywide basis. It offers strategies and establishes Siting Criteria to be used as an aid to evaluate sites proposed for development of needed solid waste transformation and land disposal facilities to effectively serve the public need.

A brief description of the contents of each chapter is provided below in Section ES-5.

1995 Disposal Quantities

In 1995, the residents and businesses of Los Angeles County disposed of approximately 12.0 million tons of solid waste at existing permitted land disposal and transformation facilities located in and out of the County. Of this amount, approximately 10.9 million tons were disposed at in-County Class III landfills, 510,000 tons at transformation (waste-to-energy) facilities, 52,000 tons exported to out-of-County Class III landfills, and 530,000 tons at permitted unclassified landfills (inert waste only). The above 1995 solid waste disposal quantities exclude approximately 775,000 tons of waste imported from Orange, Riverside, San Bernardino, San Diego, Ventura, and other counties.

The above disposal quantities for solid waste generated in Los Angeles County translate into an average disposal rate of approximately 38,550 tons per day (six-day week) Countywide; 35,050 tons per day at Class III landfills; 1,630 tons per day at waste-to-energy facilities; 170 tons per day exported to out-of-County Class III landfills; and 1,670 tons per day at permitted unclassified landfills.

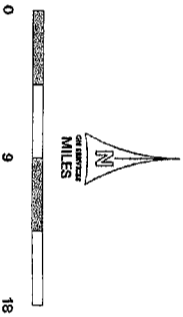
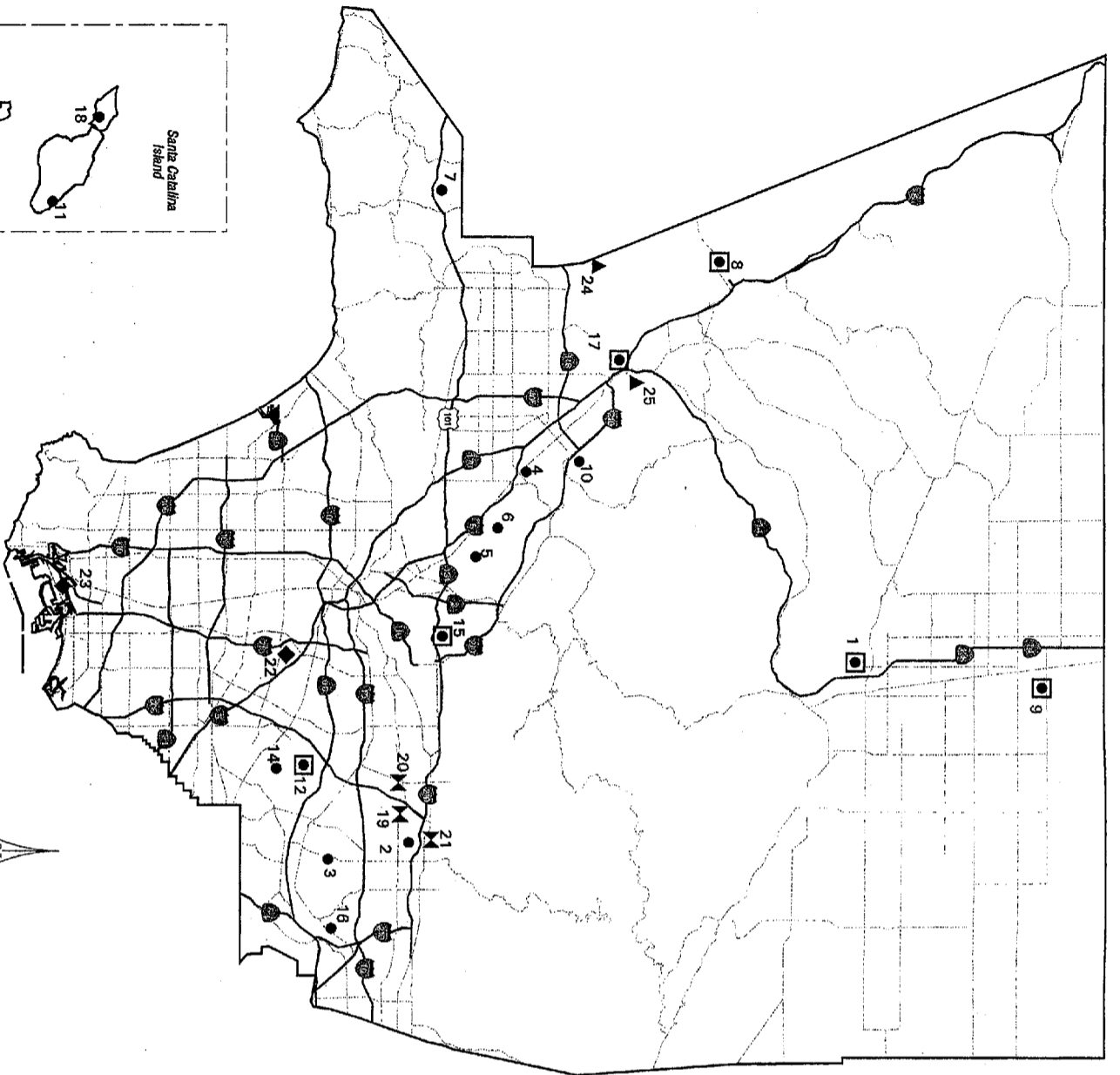
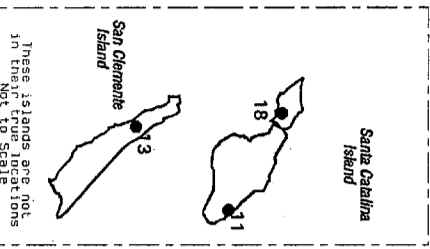
The 1995 total disposal quantity of 12.0 million tons represents a significant reduction over the 1990 disposal amount of approximately 16.1 million tons. While the recession experienced in the region between 1990 and 1995 contributed, in substantial measure, to this drop in disposal quantities, much of this reduction has occurred as a result of aggressive waste diversion programs being implemented by jurisdictions throughout Los Angeles County.

In 1995 there were 17 permitted Class III landfills operating in Los Angeles County (11 major landfills and six minor landfills including Two Harbors Landfill which closed in October 1995 due to the inability to comply with Subtitle D requirements of the Federal Resource Conservation and Recovery Act, as amended), two permitted unclassified landfills (in addition to Azusa Land Reclamation Landfill which contains areas designated for inert waste disposal only), and two transformation facilities. Figure ES-1 shows the location of each solid waste landfill and transformation facility existing in Los Angeles County in 1995 with updated information to February 1997. It should be noted that the Azusa Land Reclamation Landfill ceased disposal of non-inert solid waste on October 3, 1996; the BKK Landfill closed on September 15, 1996; the Lopez Canyon Landfill closed on July 1, 1996; the Two Harbors Landfill closed on September 30, 1995; the Sunshine Canyon Landfill began operation on August 5, 1996; and the Nu-Way Live Oak Landfill (an unclassified landfill) became permitted on June 3, 1996.

Remaining Permitted Disposal Capacity

As of December 31, 1995, the remaining permitted Class III landfill capacity in Los Angeles County is estimated at 102.3 million tons (187.9 million cubic yards; includes permitted capacity at Sunshine Canyon which was fully permitted but not yet operational). Based on the 1995 average disposal rate of 35,050 tons per day (six-day week), excluding waste being imported to the County, this capacity will be mathematically exhausted in less than ten years. However, in order to make a realistic assessment of the adequacy of the remaining Class III disposal capacity, many factors must be taken into consideration which severely hinder the accessibility of the remaining disposal capacity or that affect solid waste generation. These factors include: expiration of the Land Use Permit; Waste Discharge Requirements Permit; Solid Waste Facilities Permit; air quality permits; restrictions on the acceptance of waste generated outside jurisdictional and/or watershed boundaries; permit restrictions on the amount of waste that can be accepted daily and/or weekly; geographic barriers; and/or limitations on the amount of waste that can be handled by a facility on a daily basis due to lack of manpower and equipment. When these factors are considered, the analysis indicates that a permitted daily disposal capacity shortfall may occur as early as the year 2000.

As of December 31, 1995, the total remaining permitted inert waste capacity in the County is estimated at approximately 53.1 million tons (35.4 million cubic yards). Based on the 1995 average disposal rate of 1,770 tons inert waste per day (six-day week), this capacity will be exhausted in 96 years. This demonstrates that there is currently adequate disposal capacity at unclassified landfills and no inert landfill crisis currently exists. As such, permitted unclassified landfills are not considered in the disposal capacity analysis prepared for the CSE due to the current adequate disposal capacity for inert waste within the County, and the increasing trend towards recycling construction and demolition waste.



Class III Landfills

- 1 Antelope Valley Landfill
- 2 Azusa Land Reclamation (limited to inert waste as of 10/3/96)
- 3 BKK (closed 9/15/96)
- 4 Bradley
- 5 Brand Park
- 6 Burbank
- 7 Calabasas
- 8 Chiquita Canyon
- 9 Lancaster
- 10 Lopez Canyon (closed 7/1/96)
- 11 Pebbly Beach
- 12 Puente Hills
- 13 San Clemente
- 14 Savage Canyon
- 15 Schooll Canyon
- 16 Spadra
- 17 Sunshine Canyon (opened 8/5/96)
- 18 Two Harbors (closed 9/30/95)
- 24 Blind Canyon
- 25 Elsmere Canyon

Unclassified (Inert) Landfills *

- 19 Nu-Way Landfill (permitted on 6/3/96)
- 20 Peck Road Gravel Pit
- 21 Reliance Pit #2

Transformation Facilities

- 22 Commerce Refuse-To-Energy Facility (CREF)
- 23 Southeast Resource Recovery Facility (SERRF)

LEGEND

- Existing Class III Landfill
- Potential Expansion of Existing Class III Landfill
- ▲ Potential New Class III Landfill
- ◆ Existing Transformation Facilities
- ▶ Existing Unclassified (Inert) Landfills

* Note: As of 10/3/96, Azusa Land Reclamation Landfill has been operating as an unclassified landfill only.



**Location of Existing Disposal Sites,
Potential Expansions, and Potential New Sites
in Los Angeles County**

Figure ES-1

There are currently two waste-to-energy facilities with a combined permitted daily capacity of 1,977 tons (six-day week). It is expected that these two facilities will operate at their current permitted daily capacity during the planning period. Waste-to-energy technology has been identified as an effective alternative to divert the greatest amount of solid waste from landfills and remains a valid solid waste disposal alternative for future consideration in Los Angeles County. It is commercially, technically, and environmentally feasible as demonstrated by the successful operation of these two facilities and by meeting stringent air quality standards. Currently, development of new transformation facilities in Los Angeles County may not be feasible due to the high capital development costs, uncertainty caused by deregulation of the utility industry, the current low prices for power, and negative public perception regarding this technology.

Table ES-2 lists permitted landfills and transformation facilities existing in 1995 and the quantities of solid waste disposed in 1995 originating in Los Angeles County. Table ES-2 also lists the remaining permitted capacity for these facilities as of December 31, 1995.

Waste Generation and Disposal Projections

The waste generation projections in the CSE were obtained by using the CIWMB's Adjustment Methodology. The Adjustment Methodology is considered to provide the most accurate representation of the effects of economic and population growth on solid waste generation. The Adjustment Methodology provides jurisdictions with a valuable tool for more accurately measuring their progress in reducing solid waste disposal, as well as for estimating future disposal quantities.

In applying the Adjustment Methodology, and in accordance with the requirements of State law, the 1995 waste quantities were selected as the base year data. Also, the methodology requires the use of historical/projection data on population, employment, taxable sales and, if applicable, the Consumer Price Index. State projections were used for population and taxable sales, and Southern California Association of Governments' projections for employment were used since no employment projections are available from the State or other sources through the year 2010. The resulting projections of waste generation and disposal, expressed as daily rates (six-day week), are shown in the second and fourth columns of Tables ES-3 through ES-7. The analyses assume achievement of AB 939's waste diversion mandates of 25 percent by 1995 and 50 percent by 2000 and thereafter.

Adequacy of Existing Remaining Disposal Capacity

Tables ES-3 through ES-7 consider a number of scenarios to identify disposal needs during the 15-year planning period. Each scenario provides an analysis of disposal capacity needed by the 88 cities in Los Angeles County and the County unincorporated communities for each year of the 15-year planning period, and identifies excess or shortfall of in-County disposal capacity for each planning year. The analysis also assumes that all jurisdictions in

Los Angeles County will achieve 50 percent waste reduction by the year 2000 as well as maintain that level of waste reduction through the end of the planning period.

- Table ES-3, Scenario A. This scenario assumes that all Los Angeles County solid waste that must be disposed of will be managed at existing in-County permitted disposal facilities during the 15-year planning period. The analysis also assumes that no new transformation facilities, no new landfills, and no expansions of existing landfills will become operational within Los Angeles County during the planning period.
- Table ES-4, Scenario B. This scenario is similar to Scenario A, except that it considers the potential disposal capacity savings that may be realized at in-County landfills through the use of alternative daily cover materials.
- Table ES-5, Scenario C. This scenario considers existing in-County permitted disposal facilities and utilization of up to 6,000 tons per day of out-of-Los Angeles County landfills. The analysis also assumes that no new transformation facilities, no new landfills, and no expansions of existing landfills will become operational within Los Angeles County during the 15-year planning period.
- Table ES-6, Scenario D. This scenario assumes that all Los Angeles County solid waste that must be disposed of will be managed at existing in-County permitted disposal facilities during the 15-year planning period. Additionally, the scenario assumes that all proposed expansions of existing in-County landfills, as identified in Chapter 7, will be successfully permitted and developed to their full capacity, as proposed. This scenario also assumes that no new landfills will become operational during the 15-year planning period.
- Table ES-7, Scenario E. This scenario is similar to Scenario D, except that it assumes that all proposed new in-County landfills, as identified in Chapter 7, in addition to the expansions of existing landfills, will be successfully permitted and developed to their full capacity, as proposed.

The above analyses assume full implementation of AB 939 waste diversion programs and, as indicated above, the achievement of the 25 and 50 percent waste diversion mandates by 1995 and the year 2000, respectively. The analyses consider full use of the permitted disposal capacity available at the Sunshine Canyon Landfill for the second half of 1996 and thereafter. Based on these analyses, shortfalls in daily permitted disposal capacity may be experienced as early as the year 2000. In each case, the shortfall would increase to nearly 14,000 tons per day (six-day week) or more upon expiration of the Puente Hills Landfill Conditional Use Permit in November 2003.

Table ES-2
REMAINING PERMITTED COMBINED DISPOSAL CAPACITY OF EXISTING SOLID WASTE DISPOSAL FACILITIES IN LOS ANGELES COUNTY AS OF DECEMBER 31, 1995

Facility	Solid Waste Facility Permit Number	Location City or Urban Area	Operation days/week	12/31/95 SWFP Daily Capacity Tons	LUP Daily Capacity Tons	1995 Average Daily Disposal (See Note 1) Source		Quantity of MSW Disposed In 1995 (Million Tons) Source		Estimated remaining permitted capacity (effective December 31, 1995) Million Tons	Million (cu) Yards	Comments
						In-County	Out-County	In-County	Out-County			
CLASS III LANDFILLS												
Antelope Valley	19-AA-0008	Panorama	7	1,400 (b)	—	553	—	553	0.17	2.13	3.55	The proposed expansion in the unincorporated area is not fully permitted as of 1/1/87.
Azusa Land Reclamation	19-AA-0013	Azusa	6	6,000 (c)	—	1,450	157	1,587	0.45	3.00	4.29	By Court order the landfill ceased disposal of MSW on 10/2/95. Facility currently accepts inert waste only. See footnote (c).
BRK	19-AF-0001	West Comina	6	12,000 (e)	—	8,581	1,206	9,786	2.68	2.95	4.42	Facility closed on 9/15/96 per a settlement dated 1/17/95 between BRK Corporation and the City of West Comina.
Bradley	19-AR-0008	Glendale	6	7,000	—	4,055	9	4,064	1.27	7.54	10.91	LUP expires 9/15/2007.
Brand Park	19-AA-0006	Glendale	5	102	—	28	—	28	0.009	0.59	0.99	Limited to City of Glendale Department of Public Works use only.
Burbank	19-AA-0040	Burbank	5	240	—	132	—	132	0.041	6.36	10.80	Limited to the City's use only and provided waste is collected by the City's crews.
Calabasas	19-AA-0056	Upland	6	3,500	—	1,833	326	2,159	0.57	15.05	30.12	Limited to the Calabasas Watershed only.
Chiquita Canyon	19-AA-0082	Upland	7	5,000	—	1,236	183	1,389	0.39	1.88	2.78	LUP expires 1/15/2007.
Lancaster	19-AA-0050	Lancaster	6	1,000	—	328	284	698	0.10	0.47	0.69	Approximate closure date 4/98.
Lopez Canyon	19-AA-0020	Los Angeles	5	4,000	4,000	2,958	—	2,958	0.83	0.82	0.83	Facility closed 7/1/85 when LUP expired. Landfill operation was limited to City of Los Angeles use only and subject to the collection of waste by the City Bureau of Sanitation.
Pebble Beach	19-AA-0061	Upland	6	33	—	8	—	8	0.003	0.042	0.07	The facility annual average capacity is 49 pd.
Puente Hills	19-AA-0063	Upland	6	13,200	13,200	10,150	7	10,157	3.17	29.33	62.40	LUP limits waste disposal to 22,000 tons per week. Does not accept waste from the City of Los Angeles and Orange County.
San Clemente	19-AA-0065	Upland	2	1.5	—	—	—	—	0.0006	0.048	0.38	Landfill owned and operated by the U. S. Navy.
School Canyon	19-AA-0012	Glendale	6	3,400	—	1,447	0.39	1,448	0.45	10.91	22.73	Limited to the School Canyon Watershed only.
Spartan	19-AA-0015	Upland	6	3,700	—	2,064	188	2,222	0.64	2.12	6.00	LUP limits the waste disposal rate to 16,000 tons per week. This facility does not accept waste from the City of Los Angeles and Orange County.
Sunshine Canyon	19-AA-0083	Upland	6	6,600	6,600	—	—	—	—	16.90	23.72	Facility began accepting waste for disposal on 8/5/86.
Two Harbors	19-AA-0082	Upland	5	—	—	0.35	—	0.35	0.0001	—	—	Facility closed 9/30/95.
Whittier (Savage Canyon)	19-AH-0001	Whittier	6	350	—	232	—	232	0.0724	2.85	4.44	Limited to the City of Whittier use only.
TOTAL				67,527		35,048	2,281	37,329	10.93	11.65	187.92	
UNCLASSIFIED LANDFILLS (INERT SOLID WASTE ONLY)												
Azusa Land Reclamation	19-AA-0013	Azusa	6	6,500 (d)	—	—	—	—	—	26.50	17.67	Undersized portion of the Landfill only.
Northey Lane	19-AA-0049	Inverdale	6	6,000	—	—	—	—	—	—	—	This facility became permitted on 6/29/95.
Peck Road	19-AR-0635	Monrovia	6	1,210	—	368	2	360	0.11	10.67	6.71	
Rebman Pk #2	19-AR-0854	Inverdale	5	6,000	—	1,342	68	1,410	0.42	16.56	11.04	
TOTAL				19,710		1,699	70	1,770	0.63	53.13	35.42	
TRANSFORMATION FACILITIES												
Commerce Refuse To Energy Facility	19-AA-0506	Commerce	7	1,000	—	261	68	329	0.08	0.02	0.10	Assumed to remain operational during the 15-year planning period.
Southeast Resource Recovery Facility	19-AK-0083	Long Beach	7	2,200	—	1,374	133	1,506	0.43	0.47	1.510 (g)	Assumed to remain operational during the 15-year planning period.
TOTAL				3,200		1,635	200	1,835	0.51	0.57	1.977 (h)	

NOTES:

1. Disposal quantities are based on actual tonnages reported by owners/operators of permitted solid waste disposal facilities to the DPW as a part of 1995 DQRD. The 1995 disposal tonnages listed above are based on tonnages figures for the period of January 1 through December 31, 1995.
2. Estimated Remaining Permitted Capacity based on landfill owner/operator responses to a written survey conducted by the DPW in January 1995 as well as a review of site specific permit criteria established by local land use agencies, LEAs, CRWQCBs, and the SCAMD.

FOOTNOTES:

- (a) Conversion factor based on in-place solid waste density if provided by landfill operators, otherwise a conversion factor of 1,200 lb/cu yd was used.
- (b) Antelope Valley Landfill's daily capacity of 1,400 tons is based on the SWFP issued on 12/25/85.
- (c) By Court order, on 10/2/95, the CRWQCB-Los Angeles region ordered the Azusa Land Reclamation Landfill to immediately cease accepting MSW. The facility ceased accepting MSW on 10/3/95 but continues to accept inert waste.
- (d) Permitted daily capacity of 6,500 tpd consists of 6,000 tpd of refuse and 500 tpd of inert waste. Facility currently accepts inert waste only. (See footnote (c)).
- (e) Daily capacity established in 6/30 Notice and Order, as amended by the City of West Comina.
- (f) Based on SWFP limit of 2,800 tons per week, expressed as a daily average, six days/week.
- (g) Based on SWFP limit of 471,000 tons per year, expressed as a daily average, six days/week.
- (h) Expressed as a daily average, six days/week.

Abbreviations:

- CRWQCB California Regional Water Quality Control Board
- DQRD Disposal Quantity Reporting Data
- DPW Los Angeles County Department of Public Works
- LEA Local Enforcement Agency
- LUP Land Use Permit
- MSW Municipal Solid Waste
- SCAMD South Coast Air Quality Management District
- SWFP Solid Waste Facility Permit
- tpd-6 Tons per day, 6 days/week

Identification of Existing and Potential Solid Waste Transformation and Disposal Facilities

Based on previous studies, the CSE has identified areas/sites within the Cities and the County unincorporated areas where the document's Siting Criteria may be applicable for development of new Class III landfill facilities or expansion of the existing facilities.

The CSE will require that prior to development of any of these facilities or any other land disposal/transformation facility, the facility proponent must show the project to be consistent with the CSE, as well as undergo a vigorous site-specific assessment and permitting process at the Federal, State, and local levels, including addressing all environmental concerns as mandated by CEQA. The determination of consistency with the CSE and its Siting Criteria for a particular project is obtained from the Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force through the Finding of Conformance process.

Table ES-8 provides a summary of potential new landfills and potential expansions of existing facilities as of February 1997. Figure ES-1 shows the location of existing disposal sites, potential expansions, and potential new landfill sites in Los Angeles County.

Consistency with City and County General Plans

AB 939, as amended, requires the CSE to identify areas for the location of potential new solid waste disposal facilities and potential expansion of existing solid waste disposal facilities if it is determined that existing solid waste disposal capacity within the County will be exhausted within the 15-year planning period. The sites identified in the CSE may or may not be consistent with the General Plans of their respective local jurisdiction.

The authority to determine the consistency with the General Plan lies with the government of the local jurisdiction in which the project is located. As such, the siting and protection of the areas identified for future use as solid waste disposal facilities are subject to the land use regulations (i.e., General Plan, Zoning, and land use permits) of the local jurisdictions on which the CSE must rely to be implemented. Therefore, in the CSE, areas identified are considered "**reserved**" if:

- a) **the local jurisdiction has made a specific determination that the proposed land use for the solid waste disposal site is consistent with its General Plan, or**
- b) **the use of the area as a solid waste disposal site is listed among the potential uses for the area in the local jurisdiction's General Plan. Otherwise, the identified areas are considered "**tentatively reserved**" and not consistent with the local jurisdiction's General Plan.**

The following sites are considered to be consistent with the County of Los Angeles General Plan and, therefore, for the purpose of the CSE, they are "reserved": Antelope Valley Landfill Expansion, Chiquita Canyon Landfill Expansion, Elsmere Canyon Landfill, Lancaster Landfill Expansion, Puente Hills Landfill Expansion, and Sunshine Canyon Landfill Expansion (County unincorporated area).

The following sites are identified as "tentatively reserved" in the CSE: Blind Canyon, Scholl Canyon, and the Sunshine Canyon Landfill Expansion (City of Los Angeles portion). However, the areas not brought into consistency with the local jurisdictions' General Plan by the first five-year revision of the County Integrated Waste Management Plan, or subsequent revisions, are required to be removed from the CSE. The local government having jurisdiction over the area may also remove "tentatively reserved" areas from the CSE by requesting the County to do so at the time of the next revision of the CSE.

Finding of Conformance

The CSE addresses the procedure for obtaining a Finding of Conformance (FOC) with the Los Angeles County CSE from the Task Force. The Task Force was formed by the Cities and the County in July 1990 pursuant to the requirements of AB 939 (Section 40950 of the California Public Resources Code). The Task Force membership consists of seventeen voting members, each of whom is knowledgeable in one or more aspects of solid waste management or in such related fields as environmental quality, resource or energy conservation, and land use. The FOC process will provide a) a mechanism for the inclusion of new solid waste landfills or transformation facilities, or expansions of existing solid waste disposal facilities into the CSE, and b) a process by which consistency with the CSE and compliance with its siting criteria are determined.

Current State law (Section 50001 of the California Public Resources Code) requires that after a Countywide Integrated Waste Management Plan has been approved by the CIWMB, no person shall establish a new or expand an existing solid waste disposal facility in the County unless the proposed facility has been identified in an approved CSE, or amendment thereof. To accomplish this mandate in Los Angeles County, any FOC granted by the Task Force to a solid waste disposal facility will serve as an approved amendment to the CSE.

Based on the foregoing, the FOC process provides the Task Force with the capability to ensure that the Siting Criteria contained in the CSE are applied, and that a land disposal or the transformation facility is in conformance with the CSE and its siting criteria. Additionally, the FOC process will provide a forum in which the public, local jurisdictions, public organizations, businesses, and industry may voice their opinions regarding each individual project.

Out-of-County Disposal

The CSE identifies how Los Angeles County can address the Countywide solid waste disposal needs for the 15-year planning period through utilization of existing in-County solid waste disposal facilities, and development of new and/or expansion of existing facilities. However, to ensure that solid waste disposal, an essential public service, remains uninterrupted during the 15-year planning period and in the long term, the CSE identifies and describes out-of-County disposal facilities, including those with waste-by-rail capability, that may be available for disposal of waste generated in Los Angeles County. As a part of this analysis, a description of the needed in-County solid waste stations with waste-by-rail capability is also provided.

The CSE also describes the limitations of the out-of-County disposal option as a means ensure reliable and economical disposal capacity to the residents and businesses of Los Angeles County. Based on limitations identified, out-of-County solid waste disposal is viewed as a means of supplementing in-County disposal capacity in the event that anticipated in-County capacity is not attained and/or as a means to extend the life of in-County landfills.

Table ES-9 provides a summary of existing and proposed out-of-County disposal facilities which may be available for use by jurisdictions in Los Angeles County.

Implementation

As required by State law, the CSE establishes timelines and identifies public and/or private entities which have control in implementation of the goals and policies listed.

ES-5 SUMMARY OF THE CSE

The following provides a brief overview of each chapter.

- **CHAPTER 1 - Introduction**

This chapter provides an overview of the State requirements and background information on the Los Angeles County solid waste management system. Also included is a summary of the activities that have been instituted by the County Board of Supervisors (Los Angeles County Solid Waste Management Action Plan) since 1986 in addressing the solid waste needs of this County.

- **CHAPTER 2 - Goals and Policies**

This chapter lists goals and policies developed by the Task Force (as required by State law). This chapter also identifies the agencies responsible for implementing the

Countywide Siting Element, the implementation of tasks identified, and funding source for the administration of the document.

- **CHAPTER 3 - Existing Solid Waste Disposal Facilities**

This chapter identifies all existing permitted landfills and transformation facilities in Los Angeles County. The chapter also includes a series of tables and maps providing all essential information on each facility.

- **CHAPTER 4 - Current Disposal Rate and Assessment of Disposal Capacity Needs**

This chapter quantifies the current disposal rate, as well as projection of disposal needs during each year of the 15-year planning period. A number of scenarios have been analyzed in identifying when the County will experience a shortfall in permitted daily disposal capacity based on status quo, as well as other alternatives identified in the document.

- **CHAPTER 5 - Alternative Disposal Technologies**

This chapter describes existing and potential alternative solid waste disposal technologies. The chapter also describes a number of potential landfill capacity saving measures and the potential savings that may be realized through their implementation.

- **CHAPTER 6 - Facility Siting Criteria**

This chapter provides an overview of regulatory requirements for siting of solid waste disposal facilities. As required by State law, and in accordance with the California Integrated Waste Management Board's regulations, this chapter also includes the siting criteria for development of new landfills and transformation facilities, and expansion of existing facilities.

- **CHAPTER 7 - Proposed In-County Facility Location and Description**

This chapter identifies and provides information on areas in the County and/or cities which may be potentially suitable for development of landfill facilities. This chapter also identifies all existing facilities that could be expanded during the required planning period. The potential new sites identified are:

- Blind Canyon
- Elsmere Canyon

Facilities identified for expansion are:

- Antelope Valley Landfill
- Chiquita Canyon Landfill
- Lancaster Landfill
- Puente Hills Landfill
- Scholl Canyon Landfill
- Sunshine Canyon Landfill (City of Los Angeles and the unincorporated area)

- **CHAPTER 8 - General Plan Consistency**

This chapter provides information on the consistency, with the appropriate jurisdiction's General Plan, of each potential new landfill site and potential expansion of an existing site which was listed in Chapter 7.

- **CHAPTER 9 - Out-of-County Disposal Facilities**

This chapter identifies existing and proposed landfills in adjacent counties which may be available for use by jurisdictions in Los Angeles County.

- **CHAPTER 10 - Finding of Conformance**

This chapter describes how new facilities or expansion of existing facilities can obtain a Finding of Conformance with the Countywide Siting Element. This process will insure full compliance with the siting criteria, as well as other requirements which the Task Force may have.

**TABLE ES-3
SCENARIO A
DISPOSAL CAPACITY SHORTFALL ANALYSIS
ASSUMING NO NEW OR EXPANDED LANDFILLS DURING THE PLANNING PERIOD
Based on January 1, 1995 through December 31, 1995 six-day average tonnages and
assuming AB 939 diversion is fully implemented
Los Angeles County Countywide Siting Element**

Year	Waste Generation Rate	Percent Diversion	Total Disposal Need	Maximum Daily Transformation Capacity	Landfill Disposal Need	Daily Disposal Capacity Shortfall (Excess)
	(tpd-6)		(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)
1995	49,133	25.00%	36,849			
1996	50,406	30.00%	35,285	1,977	33,308	(22,234)
1997	51,290	35.00%	33,339	1,977	31,362	(2,720)
1998	52,123	40.00%	31,274	1,977	29,297	(2,269)
1999	52,582	45.00%	28,920	1,977	26,943	(1,972)
2000	53,661	50.00%	26,830	1,977	24,853	2,042
2001	54,815	50.00%	27,407	1,977	25,430	3,946
2002	55,792	50.00%	27,896	1,977	25,919	4,372
2003	56,839	50.00%	28,420	1,977	26,443	4,830
2004	57,824	50.00%	28,912	1,977	26,935	17,260
2005	58,750	50.00%	29,375	1,977	27,398	17,679
2006	59,692	50.00%	29,846	1,977	27,869	24,090
2007	60,628	50.00%	30,314	1,977	28,337	24,499
2008	61,557	50.00%	30,778	1,977	28,801	24,905
2009	62,478	50.00%	31,239	1,977	29,262	25,307
2010	63,390	50.00%	31,695	1,977	29,718	25,705

ASSUMPTIONS:

- 1.- The waste Generation Rate was estimated using the CIWMB's adjustment methodology, utilizing population and economic projections available from the State Department of Finance and the Southern California Association of Governments.
- 2.- Diversion Rate 25% in 1995, increase to 50% by 2000 and thereafter.

NOTES:

- 1.- The 1995 Disposal Tonnage Rates are based on permitted daily capacity and on the average daily tonnages for the period of 1/1/95 to 12/31/95.
- 2.- "tpd-6": tons per day, 6 day per week average.

Source: Los Angeles County Department of Public Works, February 1997.

**TABLE ES-4
SCENARIO B
DISPOSAL CAPACITY SHORTFALL ANALYSIS
ASSUMING NO NEW OR EXPANDED IN-COUNTY LANDFILLS AND
ALTERNATIVE DAILY COVER CAPACITY SAVINGS DURING THE PLANNING PERIOD
Based on January 1, 1995 through December 31, 1995 six-day average tonnages and
assuming AB 939 diversion is fully implemented
Los Angeles County Countywide Siting Element**

Year	Waste Generation Rate	Percent Diversion	Total Disposal Need	Maximum Daily Transformation Capacity	Landfill Disposal Need	Daily Disposal Capacity Shortfall (Excess)
	(tpd-6)		(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)
1995	49,133	25.00%	36,849			
1996	50,406	30.00%	35,285	1,977	33,308	(22,234)
1997	51,290	35.00%	33,339	1,977	31,362	(2,720)
1998	52,123	40.00%	31,274	1,977	29,297	(2,269)
1999	52,582	45.00%	28,920	1,977	26,943	(1,972)
2000	53,661	50.00%	26,830	1,977	24,853	2,042
2001	54,815	50.00%	27,407	1,977	25,430	3,946
2002	55,792	50.00%	27,896	1,977	25,919	4,372
2003	56,839	50.00%	28,420	1,977	26,443	4,830
2004	57,824	50.00%	28,912	1,977	26,935	17,260
2005	58,750	50.00%	29,375	1,977	27,398	17,664
2006	59,692	50.00%	29,846	1,977	27,869	24,090
2007	60,628	50.00%	30,314	1,977	28,337	24,499
2008	61,557	50.00%	30,778	1,977	28,801	24,905
2009	62,478	50.00%	31,239	1,977	29,262	25,307
2010	63,390	50.00%	31,695	1,977	29,718	25,705

ASSUMPTIONS:

- 1.- The waste Generation Rate was estimated using the CIWMB's adjustment methodology, utilizing population and economic projections available from the State Department of Finance and the Southern California Association of Governments.
- 2.- Diversion Rate 25% in 1995, increase to 50% by 2000 and thereafter.
- 3.- The remaining permitted disposal capacity at some of the Landfills was increased by 10% beginning 1/1/98, on the assumption that these facilities will fully utilize ADC materials.

NOTES:

- 1.- The 1995 Disposal Tonnage Rates are based on permitted daily capacity and on the average daily tonnages for the period of 1/1/95 to 12/31/95.
- 2.- "tpd-6": tons per day, 6 day per week average.

Source: Los Angeles County Department of Public Works, February 1997.

**TABLE ES-5
SCENARIO C
DISPOSAL CAPACITY SHORTFALL ANALYSIS
ASSUMING NO NEW OR EXPANDED IN-COUNTY LANDFILLS AND UTILIZATION OF
OUT-OF-COUNTY DISPOSAL FACILITIES DURING THE PLANNING PERIOD
Based on January 1, 1995 through December 31, 1995 six-day average tonnages and
assuming AB 939 diversion is fully implemented
Los Angeles County Countywide Siting Element**

Year	Waste Generation Rate	Percent Diversion	Total L. A. Co. Disposal Need	Imported Waste	Waste Exports to Out-of County Landfills	Maximum Daily Transformation Capacity	Landfill Disposal Need	Daily Disposal Capacity Shortfall (Excess)
	(tpd-6)		(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)
1995	49,133	25.00%	36,849	2,481	167	1,835	37,328	
1996	50,406	30.00%	35,285	2,400	2,000	1,977	33,708	(21,834)
1997	51,290	35.00%	33,339	1,500	3,500	1,977	29,362	(4,720)
1998	52,123	40.00%	31,274	1,000	3,500	1,977	26,797	(4,769)
1999	52,582	45.00%	28,920	500	3,500	1,977	23,943	(4,972)
2000	53,661	50.00%	26,830	0	3,500	1,977	21,353	(1,458)
2001	54,815	50.00%	27,407	0	3,500	1,977	21,930	446
2002	55,792	50.00%	27,896	0	3,500	1,977	22,419	872
2003	56,839	50.00%	28,420	0	3,500	1,977	22,943	1,330
2004	57,824	50.00%	28,912	0	6,000	1,977	20,935	11,260
2005	58,750	50.00%	29,375	0	6,000	1,977	21,398	11,679
2006	59,692	50.00%	29,846	0	6,000	1,977	21,869	18,090
2007	60,628	50.00%	30,314	0	6,000	1,977	22,337	18,499
2008	61,557	50.00%	30,778	0	6,000	1,977	22,801	18,905
2009	62,478	50.00%	31,239	0	6,000	1,977	23,262	19,307
2010	63,390	50.00%	31,695	0	6,000	1,977	23,718	19,705

ASSUMPTIONS:

- 1.- The waste Generation Rate was estimated using the CIWMB's adjustment methodology, utilizing population and economic projections available from the State Department of Finance and the Southern California Association of Governments.
- 2.- Diversion Rate 25% in 1995, increase to 50% by 2000 and thereafter.
- 3.- Import and Export quantities for 1996 and beyond are assumed.

NOTES:

- 1.- The 1995 Disposal Tonnage Rates are based on permitted daily capacity and on the average daily tonnages for the period of January 1, 1995 to December 31, 1995.
- 2.- "tpd-6": tons per day, 6 day per week average.

Source: Los Angeles County Department of Public Works, February 1997.

**TABLE ES-6
SCENARIO D
DISPOSAL CAPACITY SHORTFALL ANALYSIS
UTILIZING EXISTING LANDFILLS, AND ASSUMING DEVELOPMENT OF
ALL PROPOSED EXPANSIONS DURING THE PLANNING PERIOD
Based on January 1, 1995 through December 31, 1995 six-day average tonnages and
assuming AB 939 diversion is fully implemented
Los Angeles County Countywide Siting Element**

Year	Waste Generation Rate	Percent Diversion	Total Disposal Need	Maximum Daily Transformation Capacity	Landfill Disposal Need	Daily Disposal Capacity Shortfall (Excess)
	(tpd-6)		(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)
1995	49,133	25.00%	36,849			
1996	50,406	30.00%	35,285	1,977	33,308	(22,234)
1997	51,290	35.00%	33,339	1,977	31,362	(9,420)
1998	52,123	40.00%	31,274	1,977	29,297	(8,969)
1999	52,582	45.00%	28,920	1,977	26,943	(13,672)
2000	53,661	50.00%	26,830	1,977	24,853	(10,058)
2001	54,815	50.00%	27,407	1,977	25,430	(9,554)
2002	55,792	50.00%	27,896	1,977	25,919	(9,128)
2003	56,839	50.00%	28,420	1,977	26,443	(8,670)
2004	57,824	50.00%	28,912	1,977	26,935	(8,240)
2005	58,750	50.00%	29,375	1,977	27,398	(7,821)
2006	59,692	50.00%	29,846	1,977	27,869	(7,410)
2007	60,628	50.00%	30,314	1,977	28,337	(7,001)
2008	61,557	50.00%	30,778	1,977	28,801	(6,595)
2009	62,478	50.00%	31,239	1,977	29,262	(6,193)
2010	63,390	50.00%	31,695	1,977	29,718	(795)

ASSUMPTIONS:

- 1.- The waste Generation Rate was estimated using the CIWMB's adjustment methodology, utilizing population and economic projections available from the State Department of Finance and the Southern California Association of Governments.
- 2.- Diversion Rate 25% in 1995, increase to 50% by 2000 and thereafter.

NOTES:

- 1.- The 1995 Disposal Tonnage Rates are based on permitted daily capacity and on the average daily tonnages for the period of 1/1/95 to 12/31/95.
- 2.- "tpd-6": tons per day, 6 day per week average.

Source: Los Angeles County Department of Public Works, February 1997.

**TABLE ES-7, SUMMARY
SCENARIO E
DISPOSAL CAPACITY SHORTFALL ANALYSIS
UTILIZING EXISTING LANDFILLS, AND ASSUMING DEVELOPMENT OF ALL PROPOSED
EXPANSIONS AND PROPOSED NEW SITES DURING THE PLANNING PERIOD
Based on January 1, 1995 through December 31, 1995 six-day average tonnages and
assuming AB 939 diversion is fully implemented
Los Angeles County Countywide Siting Element**

Year	Waste Generation Rate	Percent Diversion	Total Disposal Need	Maximum Daily Transformation Capacity	Landfill Disposal Need	Daily Disposal Capacity Shortfall (Excess)
	(tpd-6)		(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)
1995	49,133	25.00%	36,849			
1996	50,406	30.00%	35,285	1,977	33,308	(22,234)
1997	51,290	35.00%	33,339	1,977	31,362	(9,420)
1998	52,123	40.00%	31,274	1,977	29,297	(8,969)
1999	52,582	45.00%	28,920	1,977	26,943	(13,672)
2000	53,661	50.00%	26,830	1,977	24,853	(26,558)
2001	54,815	50.00%	27,407	1,977	25,430	(26,054)
2002	55,792	50.00%	27,896	1,977	25,919	(25,628)
2003	56,839	50.00%	28,420	1,977	26,443	(25,170)
2004	57,824	50.00%	28,912	1,977	26,935	(24,740)
2005	58,750	50.00%	29,375	1,977	27,398	(40,821)
2006	59,692	50.00%	29,846	1,977	27,869	(40,410)
2007	60,628	50.00%	30,314	1,977	28,337	(40,001)
2008	61,557	50.00%	30,778	1,977	28,801	(39,595)
2009	62,478	50.00%	31,239	1,977	29,262	(39,193)
2010	63,390	50.00%	31,695	1,977	29,718	(33,795)

ASSUMPTIONS:

- 1.- The waste Generation Rate was estimated using the CIWMB's adjustment methodology, utilizing population and economic projections available from the State Department of Finance and the Southern California Association of Governments.
- 2.- Diversion Rate 25% in 1995, increase to 50% by 2000 and thereafter.

NOTES:

- 1.- The 1995 Disposal Tonnage Rates are based on permitted daily capacity and on the average daily tonnages for the period of 1/1/95 to 12/31/95.
- 2.- "tpd-6": tons per day, 6 day per week average.

Source: Los Angeles County Department of Public Works, February 1997.

Table ES-8

**SUMMARY OF POTENTIAL NEW LANDFILLS
AND POTENTIAL EXPANSIONS OF EXISTING FACILITIES**

SITE/ LOCATION	OPERATOR	PROPOSED/ POTENTIAL DAILY DISPOSAL RATE	ESTIMATED DISPOSAL CAPACITY
POTENTIAL NEW CLASS III LANDFILLS			
Blind Canyon Ventura & Los Angeles Counties Unincorporated Areas	County Sanitation Districts of Los Angeles County	16,500 tpd-6	130 million tons
Elsmere Canyon County Unincorporated Area	BFI	16,500 tpd-6	80 million tons
POTENTIAL EXPANSIONS OF EXISTING CLASS III LANDFILLS			
Antelope Valley County Unincorporated Area	Arklin Brothers Enterprises, Inc.	1,800 tpd-7	6.4 million tons
Chiquita Canyon County Unincorporated Area	Laidlaw Waste Systems, Inc.	5,000 tpd-7	18.3 million tons
Lancaster County Unincorporated Area	Waste Management of Lancaster, Inc.	1,700 tpd-6	10.5 million tons
Puente Hills County Unincorporated Area	County Sanitation Districts of Los Angeles County	12,000 tpd-6	37 million tons
Scholl Canyon City of Glendale	City of Glendale/County Sanitation Districts of Los Angeles County	3,400 tpd-6	6 million tons
Sunshine Canyon County Unincorporated Area & City of Los Angeles	BFI of California, Inc.	11,000 tpd-6	75 million tons

Source: Los Angeles County Department of Public Works, Environmental Programs Division, January 1997

**Table ES-9
Summary of Existing and Proposed Out-of-County Landfills**

Site/Location	Owner/Operator	Rail Access	Daily Diposal Rate	Estimated Disposal Capacity
Existing Out-of-County Landfills				
Bowerman¹ Orange Co., CA	Orange Co. Integrated Waste Mgmt. Dept.	No	6,675 tpd current 8,000 tpd max.	73 million tons
Butterfield Arizona	WMX	Yes	unlimited	44 million tons
Columbia Ridge Oregon	WMX	Yes	unlimited	60 million tons
Copper Mountain Arizona	Sanifill (USA Waste)	No	unlimited	20.7 million tons
East Carbon Utah	ECDC (Laidlaw)	Yes	unlimited	260 million tons
El Sobrante² Riverside Co., CA	Western Waste Ind. (USA Waste)	No	4,000 tpd	8 million tons (108 million tons proposed)
Franconia⁴ Arizona	WMX	Yes	unlimited	10 million tons
La Paz Arizona	La Paz County & BFI	Yes	unlimited	20 million tons (80 million tons proposed)
Lockwood Nevada	Refuse, Inc.	No	3,500 tpd start-up unlimited max.	200 million tons
Olinda/Olinda Alpha¹ Orange Co., CA	Orange Co. Integrated Waste Mgmt. Dept.	No	6,675 tpd current 8,000 tpd max.	41.2 million tons
Prima Deshecha³ Orange Co., CA	Orange Co. Integrated Waste Mgmt. Dept.	No	4,000 tpd	46.3 million tons
Roosevelt Washington	Rabanco	Yes	unlimited	120 million tons
Simi Valley Ventura Co., CA	WMX	No	3,000 tpd	8.1 million tons
Toland Road³ Ventura Co., CA	Ventura Regional Sanitation Dikstrict	No	1,500 tpd	15 million tons

Notes:

¹Orange County has signed contracts with private waste haulers for the disposal of approximately 5,000 tpd of solid waste maximum from other counties in Orange County facilities.

²Of the 108 million ton proposed expansion, 40 percent of the daily and total waste capacity would be reserved for Riverside County, and the remaining 60 percent could be used to dispose of waste from areas outside Riverside County.

³Out-of-county waste is currently not accepted at this facility.

⁴Landfill is fully permitted but not yet built.

Source: Los Angeles County Department of Public Works, Environmental Programs Division, January 1997

Table ES-9 (cont'd)
Summary of Existing and Proposed Out-of-County Landfills

Site/Location	Owner/Operator	Rail Access	Proposed Daily Diposal Rate	Estimated Disposal Capacity
Proposed Out-of-County Landfills				
Bolo Station San Bernardino Co., CA	RailCycle (WMX and Burlington Northern & Santa Fe Railway Co.)	Yes	21,000 tpd (3,000 tpd start-up)	430 million tons
Campo San Diego Co., CA	Campo Band of Mission Indians and Muht-Hei, Inc.; operator not known	Yes	3,000 tpd	28 million tons
Eagle Mountain Riverside Co., CA	Mine Reclamation Corp.	Yes	20,000 tpd	700 million tons
Mesquite Regional Imperial Co., CA	Western Waste Inds. (USA Waste), So. Pacific, Gold Fields Mining, Inc., & Arid Operations	Yes	20,000 tpd (4,000 tpd start-up)	624 million tons

Source: Los Angeles County Department of Public Works, Environmental Programs Division, January 1997

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CHAPTER 1 INTRODUCTION

Los Angeles County has the most extensive and complex solid waste management system in the State and possibly in the country. In order to understand the complexity of the solid waste management issues, planning strategies, and challenges faced by the County, it is essential to fully comprehend the County's size, population, number of jurisdictions, public/private relationships, political and economic structure, as well as the dynamic nature of its solid waste management system.

Los Angeles County covers an area of approximately 4,100 square miles and consists of 88 Cities and various unincorporated County communities. Home to more than 9.3 million people, Los Angeles County is the most populous county in the nation, larger in population than 42 states and 162 countries. One out of every three California residents live in Los Angeles County. The County's population is projected to increase by more than 1.5 million between 1990 and the year 2005. This projected increase in population is greater than the 1990 populations of 55 of the 58 counties in California and exceeds the combined 1990 populations of Alameda, Humboldt, and Imperial Counties. This vigorous growth, if coupled with comparable increases in economic activity, will have a major impact on the solid waste management infrastructure in the County, and will require a major concerted effort by all jurisdictions in the County to provide for the waste disposal needs of their residents.

Los Angeles County is also the nation's largest manufacturing center. The Port of Los Angeles has one of the world's largest artificial harbors, is one of the nation's chief fishing ports, and houses one of the world's largest fish-canning centers. Most of the trade between the United States and Japan flows through here. If it were a separate country, Los Angeles County would be the 15th largest in the world in terms of gross national product.

Los Angeles County was once the number one farm county in the nation. But over the last 45 years, agricultural importance has given way to rapid urban and industrial expansion. Now, Los Angeles County is a national leader in many industries including retail and wholesale distribution, apparel, aerospace and defense, finance and business services, oil-refining, international trade, tourism, and entertainment. The entertainment industry has always been an important component to the economy and history of Los Angeles County and is currently the fastest growing source for new jobs.

The strong economic growth of the County in the last few decades has been aided in part by having one of the most efficient and economical waste management systems in the nation. The County's current challenge lies in protecting the health, safety, and economic well-being of the County residents while continuing to provide an environmentally safe, efficient, and economic solid waste disposal system.

1.1 DEFINITION OF SOLID WASTE

The California Public Resources Code (PRC), Section 40191, defines "solid waste" as "(a) Except as provided in subdivision (b), 'solid waste' means all putrescible and nonputrescible solid, semisolid, and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, dewatered, treated, or chemically fixed sewage sludge which is not hazardous waste, manure, vegetable or animal solid and semisolid wastes, and other discarded solid and semisolid wastes. (b) 'Solid waste' does not include any of the following wastes: (1) Hazardous waste, as defined in Section 40141. (2) Radioactive waste regulated pursuant to the Radiation Control Law (Chapter 8 (commencing with Section 114960) of Part 9 of Division 104 of the Health and Safety Code). (3) Medical waste regulated pursuant to the Medical Waste Management Act (Part 14 (commencing with Section 117600) of Division 104 of the Health and Safety Code). Untreated medical waste shall not be disposed of in a solid waste landfill, as defined in Section 40195.1. Medical waste that has been treated and deemed to be solid waste shall be regulated pursuant to this division."

1.2 PURPOSE OF THE COUNTYWIDE SITING ELEMENT

The California Integrated Waste Management Act of 1989 (AB 939), as amended, Section 40000 et seq. of the PRC requires each county to prepare a countywide siting element which identifies how the county and the cities within the county will address the need for 15 years of disposal (landfill and/or transformation) capacity to safely handle solid waste generated in the county which remains after recycling, composting, and other waste diversion activities. AB 939 has recognized that landfills and transformation facilities are necessary components of any integrated solid waste management system, and an essential component of the waste management hierarchy. AB 939 establishes a hierarchy of waste management practices in the following order and priority: (1) source reduction, (2) recycling and composting, and (3) environmentally safe transformation/land disposal.

The Los Angeles Countywide Siting Element addresses disposal (landfill and transformation component), the third element of the cities in Los Angeles County and the County unincorporated communities waste management planning and practices. The first two elements of the waste management planning and practices, namely, source reduction, recycling, and composting are addressed in the Source Reduction and Recycling Elements, which, as mandated by State law, have been prepared separately by each city in Los Angeles County and the County unincorporated communities, and are summarized in the Los Angeles County Integrated Waste Management Summary Plan. The purpose of the Countywide Siting Element for the County of Los Angeles (CSE) is to provide a planning mechanism to address the solid waste disposal capacity needed by the 88 Cities in Los Angeles County and the County unincorporated communities for each year of the 15-year planning period, through a combination of existing facilities, expansion of the existing facilities, planned facilities, and other strategies.

The CSE is not intended to be a definitive plan for the development of disposal facilities but is intended to be a tool and planning mechanism for cities of the County and the waste management industry to use to plan for and develop adequate disposal capacity within the County. The CSE identifies sites which may be potentially suitable for development by interested parties for use as disposal facilities. When an interested party selects a site for development as a waste disposal facility, the project must undergo a stringent examination of its technical and environmental feasibility and obtain all applicable permits from the appropriate government agencies. The CSE is not a proposal for the development of such disposal projects, but a planning tool to address the disposal needs of the businesses and residents of the 88 cities in Los Angeles County and the County unincorporated communities.

1.2.1 Specific Requirements

The basic statutory requirements for the content and format of the CSE are found in the PRC, Sections 41700 through 41721.5. The CSE has been prepared in compliance with the above laws and in accordance with regulations outlined in the California Code of Regulations (CCR), Sections 18755 through 18756.7, which were developed by the California Integrated Waste Management Board (CIWMB) and approved by the Office of Administrative Law in July 1994 for the preparation of the CSE. Regulations governing the procedures for preparing and revising the CSE are contained in the CCR, Sections 18776 through 18788.

1.2.2 Background on Countywide Siting Element Development and Approval Process

The Los Angeles County Department of Public Works, under the auspices of the Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force, is responsible for preparation of the CSE and its Environmental Impact Report (EIR), see Section 1.6. The preparation of the Preliminary Draft of the CSE and its Draft EIR was completed in early 1996. Subsequently, the documents were released to cities, governmental agencies, neighboring counties, environmental organizations, and private industries for a 45-day comment period on March 11, 1996. In order to assure availability of the documents to citizens, copies of the Preliminary Draft CSE and its Draft EIR were also delivered to over 230 County and city libraries throughout Los Angeles County, as well as the Department of Public Works Headquarters and its field offices. Additionally, the Department conducted a series of 13 community information meetings throughout Los Angeles County during the period of April 1 to April 22, 1996. Notices of the availability of the documents and the times and locations of the public information meetings were published in the Los Angeles Times and numerous local newspapers in an effort to maximize participation. These outreach efforts are documented in Volume III, Appendices 1-E through 1-K, of the CSE and its Final EIR.

Due to the positive response by both the cities and the public, and to ensure maximum participation by all concerned, the comment period was subsequently extended twice for a total of over 200 days, ending on October 17, 1996. Additionally, the Department worked with groups, such as the Natural Resources Defense Council and Landfill Alternatives Save Environmental Resources, to gain a greater insight into areas of the CSE that may be revised for greater clarity and to expand the document's information. All comments received, both at the public meetings and/or contained in letters received during the comment period, are presented with appropriate responses in Volume I, Appendices 1-A through 1-D. The Final Drafts of the CSE and its EIR incorporate the changes developed in response to the comments received.

Section 41721 of the PRC requires the CSE be "approved by the county and by a majority of the cities within the county which contain a majority of the population of the incorporated area of the county." In addition to the local jurisdictions' approvals, the CSE must be reviewed and approved by the CIWMB. Table 1-1 provides a summary of the CSE approval process as mandated by State law.

1.3 EXISTING DISPOSAL CAPACITY

1.3.1 Background

In 1995, approximately 40,900 tons of solid waste was disposed of daily at landfills and transformation facilities in Los Angeles County. The 1995 disposal data is based on disposal data from January 1, 1995, through December 31, 1995. The distribution among the various types of disposal facilities is discussed in the following subsections.

Although the Cities and the County are in the process of implementing aggressive waste diversion programs aimed towards meeting or exceeding the AB 939 diversion mandates, population increases and economic growth will require increased cooperation by the Cities and the County towards providing for the disposal capacity needs for the residents. The Los Angeles County Solid Waste Management Action Plan (discussed in Section 1.4.2), adopted by Los Angeles County, the City of Los Angeles Board of Public Works, and the County Sanitation Districts of Los Angeles County (which represents 76 Cities), initiated a major planning effort towards a long-term solution to protecting the health, safety, and economic well-being of County residents by addressing recycling, composting, and the environmentally safe disposal need of Los Angeles County.

For the purpose of the CSE, "permitted capacity" means that disposal capacity of any solid waste disposal facility which has all the necessary permits (i.e., land use, waste discharge requirements, solid waste facility requirements, etc.).

1.3.2 Current In-County Landfill Disposal Rate

The collection of solid waste Countywide is performed by over 250 private waste haulers and several city governments. After collection, the waste is either hauled directly to the landfills, or indirectly through any one of the numerous transfer stations, resource recovery facilities, or transformation facilities located throughout the County. Los Angeles County relies on a unique mixture of publicly- and privately-owned and operated facilities to maintain a competitive environment for waste collection and disposal.

**Table 1-1
COUNTYWIDE SITING ELEMENT APPROVAL PROCESS**

<p>1. Preparation of the Draft CSE</p> <p>The County shall prepare and submit the draft CSE and the necessary environmental document to the Cities, Task Force, appropriate governmental agencies, and public for a 45-day review period and must conduct public information meetings to insure public input.</p>
<p>2. Preparation of the Final Draft CSE</p> <p>Based on the comments received on the draft CSE, the County shall prepare the final draft CSE and shall submit the document to the Cities for approval.</p>
<p>3. Local Adoption of the Final Draft CSE</p> <p>a) Each City in the County, and the County Board of Supervisors, shall conduct a public hearing for the purpose of adopting the final draft CSE. After considering all comments of members of the governing body and the public, each jurisdiction shall, by resolution, either approve or disapprove the final draft CSE within 90 days of receipt of the final draft CSE from the County. Lack of action by a City within this 90-day period would constitute tacit approval by that City.</p> <p>b) If a jurisdiction disapproves final draft CSE, the jurisdiction shall give written notice to the Task Force, the County Board of Supervisors, and the California Integrated Waste Management Board (CIWMB) of the deficient areas in the final draft CSE within 30 days of disapproval.</p> <p>c) If the final draft CSE is not approved by a majority of the cities within the County which contain a majority of the population of the incorporated area, the County shall revise the deficient areas of the final draft CSE and recirculate it as required by Title 14, CCR, Sections 18779 through 18785.</p>
<p>4. Submittal to the CIWMB</p> <p>Submittal of the final draft CSE. Upon approval of the final draft CSE, which has also been approved by a majority of the cities representing a majority of the County's incorporated population, the County shall, within 30 days of such approval, submit the following to the CIWMB:</p> <ul style="list-style-type: none"> a) three copies of the locally approved final draft CSE; b) a copy of each jurisdiction's resolution approving or disapproving the final draft CSE; c) a copy of the public notice for each jurisdiction's public hearing on the final draft CSE; d) a copy of the Notice of Determination for the project's California Environmental Quality Act document which has been filed with the State Clearinghouse in the Office of Planning and Research; and e) a tabulation showing that the final draft CSE was approved by a majority of the cities representing a majority of the population in the incorporated portion of the County.

Table 1-1 (continued)
COUNTYWIDE SITING ELEMENT APPROVAL PROCESS

5.	<p>CIWMB Approval of the Final Draft CSE</p> <p>a) The CIWMB shall, within a timeframe of 90-120 days, review the final draft CSE, and at a public hearing determine whether it meets the requirements of the California Integrated Waste Management Act of 1989, as amended. After considering public testimony and input from the Task Force, the CIWMB shall either adopt a resolution approving the ColWMP, or issue a Notice of Deficiency to the County. Within 30 days of approval/disapproval, the CIWMB shall send a copy of the resolution of approval or a Notice of Deficiency to the County.</p> <p>b) If issued a Notice of Deficiency by the CIWMB, the County, pursuant to the requirements of the PRC, Section 41811 and 41812, and with Sections 18780 through 18784 of Title 14 of the CCR, shall revise the final draft CSE addressing deficiencies identified by the CIWMB, resubmit the document to the cities for local adoption, and resubmit the document to the CIWMB within 120 days.</p>
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1.3.2.1 Class III Landfills

Los Angeles County currently is host to two classifications of land disposal facilities. The first landfill classification, Class III, is allowed to accept any type of solid waste for disposal. Class III landfills are required to comply with strict environmental and technical standards mandated by local, State, and Federal agencies. While this high level of regulation insures safe disposal of solid waste and protection of the public health, it also increases the amount of time required for the siting and permitting of Class III facilities. Today, the siting and permitting of a Class III landfill can take anywhere from seven to ten years.

In 1995, there were twelve permitted **major** Class III landfills and six permitted **minor** Class III landfills located within Los Angeles County. **Major** landfills are defined as those permitted to receive more than 250,000 tons of solid waste per year (approximately 800 tons per day, six days per week).

The major Class III landfills operating in 1995 were:

- Antelope Valley
- Azusa Land Reclamation (excluding unclassified portion)
- BKK
- Bradley
- Calabasas
- Chiquita Canyon
- Lancaster
- Lopez Canyon
- Puente Hills
- Scholl Canyon
- Spadra
- Sunshine Canyon (not operational in 1995 - permitted but not fully developed)

Based on 1995 disposal data, approximately 36,930 tons of solid waste per day (6-day week) were disposed in major Class III landfills. This amount includes waste (approximately an average of 2,280 tons per day, 6-day week) imported from other counties such as Orange, San Bernardino, San Diego, and Ventura Counties. A detailed discussion is provided in Chapter 4 - "Current Disposal Rate and Assessment of Disposal Capacity Needs."

The minor Class III landfills operating in 1995 were:

- Brand Park (City of Glendale Department of Public Works use only)
- Burbank
- Pebbly Beach, Avalon, Santa Catalina Island
- San Clemente, U.S. Navy Facility, San Clemente Island
- Savage Canyon

- Two Harbors, Santa Catalina Island

In 1995, minor Class III landfills received approximately 400 tons per day (6-day week).

The highly dynamic nature of the solid waste management system in Los Angeles County is exemplified by the many changes that occurred since 1995. The Azusa Land Reclamation Landfill ceased disposal of non-inert solid waste on October 3, 1996 due to the rescission of its Waste Discharge Requirements permit; the BKK Landfill closed on September 15, 1996 per agreement with the City of West Covina; the Lopez Canyon Landfill closed in July 1996 due to expiration of its Land Use Permit; the Two Harbors Landfill closed in September 1995 as a result of EPA regulations prohibiting the open burning of solid waste; and Sunshine Canyon Landfill began accepting waste for disposal on August 5, 1996.

The major Class III landfills operating as of January 1997 include:

- Antelope Valley
- Bradley
- Calabasas
- Chiquita Canyon
- Lancaster
- Puente Hills
- Scholl Canyon
- Spadra
- Sunshine Canyon

The minor Class III landfills operating as of January 1997 include:

- Brand Park (City of Glendale Department of Public Works use only)
- Burbank
- Pebbly Beach, Avalon, Santa Catalina Island
- San Clemente, U.S. Navy Facility, San Clemente Island
- Savage Canyon

1.3.2.2 Unclassified Landfills

The other land disposal facility classification is unclassified disposal facilities, sometimes referred to as inert landfills, which are permitted to accept only inert waste. Inert waste, as defined by Section 2524 of Title 23 of the CCR, "does not contain hazardous waste or soluble pollutants at concentrations in excess of applicable water quality objectives, and does not contain significant quantities of decomposable waste." Inert waste includes materials such as soil, concrete, asphalt, and other construction and demolition debris. Generally, haulers dispose of inert material in unclassified landfills due to the lower tipping fees charged at these facilities.

There were two permitted unclassified landfills in the County in 1995:

- Peck Road Gravel Pit
- Reliance Pit #2

Additionally, the Azusa Land Reclamation Landfill, which was a permitted Class III Landfill in 1995, included areas designated for inert waste disposal only. During 1995, approximately 1,770 tons of inert waste per day (6-day week) were disposed in unclassified landfills and the inert waste-only portion of Azusa Land Reclamation Landfill. This amount includes approximately 70 tons of waste per day imported from other counties.

In June 1996, Nu-Way Live Oak Landfill became permitted as an unclassified landfill.

The unclassified landfills operating as of January 1997 include:

- Azusa Landfill
- Nu-Way Live Oak Landfill
- Peck Road Gravel Pit
- Reliance Pit #2

Fact sheets are provided for permitted Class III and unclassified landfills in Chapter 3- "Existing Solid Waste Disposal Facilities" and Chapter 7 - "Proposed In-County Facility Location and Description."

1.3.3 Existing Landfill Disposal Capacity

1.3.3.1 Class III Landfills

As of December 31, 1995, the remaining permitted Class III landfill capacity in the County is estimated at 102.3 million tons (187.9 million cubic yards). Based on the 1995 average disposal rate of 35,050 tons per day (six-day week), excluding waste imported to the County, that capacity would have been mathematically exhausted in less than ten years assuming the status quo. However, as previously discussed, three major Class III landfills closed in 1996 which may accelerate the rate at which the remaining permitted capacity is exhausted. Additionally, as further discussed in Chapter 3 and Chapter 4, numerous factors severely hinder the accessibility of this available disposal capacity. These factors include: expiration of the land use permits and/or other regulating permits; restrictions on the acceptance of waste generated outside jurisdictional and/or watershed boundaries; permit restrictions on the amount of waste that can be accepted daily; and/or limitations on the amount of waste that can be handled by a facility on a daily basis due to the lack of manpower and equipment. When these factors are considered, the analysis indicates that a permitted daily disposal capacity shortfall may occur as early as the year 2000.

One of the critical limiting factors is the jurisdictional restrictions on waste disposal. Burbank and Savage Canyon Landfills can only receive solid waste generated within the Cities of Burbank and Whittier, respectively. Puente Hills and Spadra Landfills are prohibited from receiving any waste originating from the City of Los Angeles. Calabasas and Scholl Canyon Landfills only accept solid waste generated within their defined wastesheds. Brand Park Landfill is for use by the City of Glendale Department of Public Works only and San Clemente Landfill is for use by the U.S. Navy only.

Between 1997 and 2000, an additional five major landfills may be closed due to capacity limitations or the expiration of land use and/or other operational permits. Under these circumstances, if no expansions of existing facilities occur or no new disposal facilities are developed, the County may experience shortfalls in Class III daily disposal capacity as early as 2000. A complete description of the County's Disposal Capacity Shortfall Analysis is detailed in Chapter 4 - "Current Disposal Rate and Assessment of Disposal Capacity Needs."

1.3.3.2 Unclassified Landfills

The total remaining permitted inert waste capacity in the County is approximately 53.1 million tons (35.4 million cubic yards). At the current average disposal rate of 1,770 tons per day, six days per week, this capacity will be exhausted in about 96 years. This demonstrates that there is currently sufficient daily capacity at unclassified landfills and no inert landfill shortfall currently exists.

Permitted unclassified landfills are not considered in the disposal capacity analysis prepared for this document due to the currently adequate disposal capacity (15-year planning period) for inert materials within the County and the increasing trend towards recycling construction and demolition waste.

1.3.4 Current In-County Transformation Disposal Rate and Capacity

Title 14, Section 18720, of the CCR defines a transformation facility as "a facility whose principal function is to convert, combust, or otherwise process solid waste by incineration, pyrolysis, destructive distillation, or gasification, or to chemically or biologically process solid wastes, for the purpose of volume reduction, synthetic fuel production, or energy recovery. Transformation facility does not include a composting facility."

Waste-to-energy technology has been identified as the most effective alternative to divert the greatest amount of solid waste from landfills. Two waste-to-energy facilities are located within the County and both are co-owned by the County Sanitation Districts of Los Angeles County and their respective host city.

As discussed in Chapter 4, the two facilities can manage approximately 1,977 tons of solid waste per day (6-day week). The residual ash generated from the transformation process is diverted for use in the production of portland cement concrete and other uses.

Opened in 1988, the Southeast Resource and Recovery Facility (SERRF) in the City of Long Beach is owned by a Joint Powers Authority (JPA) formed by the City of Long Beach and the County Sanitation District No. 2 of Los Angeles County. The City leases the facility from the JPA and has hired a contractor to operate the facility. In 1995, the SERRF managed approximately 1,510 tons of waste per day (6-day week) including about 130 tons per day of waste imported from outside Los Angeles County.

The Commerce Refuse-to-Energy Facility (CREF) in the City of Commerce began operation in 1987 and is owned by the Commerce Refuse-to-Energy Authority, a Joint Powers Authority formed by the City of Commerce and the County Sanitation District No. 2 of Los Angeles County. The facility is operated by the County Sanitation Districts of Los Angeles County pursuant to an agreement between the Commerce Refuse-to-Energy Authority and the County Sanitation Districts of Los Angeles County. In 1995, the facility incinerated approximately 330 tons of waste per day (6-day week) which includes about 70 tons per day imported from other counties.

Waste-to-energy technology has been identified as an effective alternative to divert the greatest amount of solid waste from landfills and remains a valid solid waste disposal alternative for future consideration in Los Angeles County. It is commercially, technically, and environmentally feasible as demonstrated by the successful operation of the above-mentioned facilities and by meeting stringent air quality standards. However, the development of additional transformation facilities in Los Angeles County during the 15-year planning period is unlikely due to the high capital costs involved in developing these facilities, uncertainty caused by deregulation of the energy industry, the current low prices for power, the unavailability of power contracts, and public opposition to perceived air quality impacts.

Transformation facilities are discussed further in Chapter 3, Chapter 5, and Chapter 7.

1.3.5 Import/Export of Waste, January 1, 1996

In recent years, the importation and exportation of solid waste has become a very important issue in the management of solid waste. Los Angeles County is closely neighbored by eight counties: Imperial, Kern, Orange, Riverside, San Bernardino, Ventura, Santa Barbara, and San Diego. The close proximity of Los Angeles County to other counties and the relatively few existing waste flow controls adds another factor that must be considered in the County's waste management and disposal strategies.

In 1995, Los Angeles County exported approximately 170 tons of solid waste per day (6-day week) to Orange, Riverside, San Bernardino, and Ventura Counties for disposal. Approximately 2,550 tons of imported solid waste per day (6-day week) were received by Los Angeles County landfills and transformation facilities during the 1995 calendar year. Solid waste originated from ten different counties outside of Los Angeles County: waste came from as far north as Shasta County and as far south as Tijuana, Mexico. Of waste imported to Los Angeles County, approximately 905 tons per day originated in San Diego County, 475 tons per day were received from Ventura County, 755 tons per day came from Orange County, 370 tons per day were imported from San Bernardino County, and smaller amounts from other counties.

As previously indicated, BKK Landfill closed on September 15, 1996, Azusa Landfill ceased accepting non-inert solid waste on October 3, 1996 and Lopez Canyon Landfill closed in July 1996. Those three landfills were handling nearly 22,000 tons per day (six days per week). After their closure, the waste was shifted to other in-County facilities and some to out-of-County facilities during the last quarter of 1996. However, the final disposal data was not available at the time of preparation of the final draft CSE. While the impact of these closures was somewhat off-set by the reopening of Sunshine Canyon Landfill, these events resulted in a net loss of nearly 16,000 tpd (about one fourth) of Los Angeles County's daily permitted capacity.

The out-of-County exportation of waste (rail haul, etc.) has been recognized by the Los Angeles County Solid Waste Management Action Plan (see Subsection 1.4.2) as an essential element in the long-term solid waste disposal strategies for Los Angeles County. Rail haul is discussed in further detail in Chapter 9 - "Out-of-County Disposal."

1.4 EXISTING PLANNING ACTIVITIES

The management of solid waste in the County has always been a complex undertaking involving public and private refuse collection services, public and private operation of solid waste facilities, multi-agency regulation, and regional versus local considerations. Solid waste management has become an increasingly difficult task in recent years with the implementation of progressively more stringent regulations for landfill/transformation facility development and operations, public resistance to the siting of all types of solid waste facilities including refuse-to-energy facilities, increasingly longer hauling distances to disposal sites, escalating solid waste handling and disposal costs, and dwindling landfill capacity. The Cities and the County have worked together to develop several planning strategies over the last several years to safely and effectively dispose of the waste generated by the County's residents and businesses. These planning/implementing activities are discussed below.

1.4.1 County Solid Waste Management Plan

Solid waste planning activities in Los Angeles County are currently governed by the existing Los Angeles County Solid Waste Management Plan (CoSWMP) (March 1984) and Revision A (August 1985). Among the many strategies identified in the existing CoSWMP for the management of solid waste is to develop a number of in-County waste-to-energy facilities to handle 40 percent of the solid waste generated in Los Angeles County. This document which received approval by the majority of the Cities in Los Angeles County containing a majority of the incorporated population and the County Board of Supervisors, was approved by the former California Waste Management Board in March 1986. The CoSWMP was prepared pursuant to the requirements of the California Solid Waste Management and Resource Recovery Act of 1972 and was initially adopted by the Board of Supervisors in June 1976 and approved by the California Waste Management Board in December 1977.

As required by the California Solid Waste Management and Resource Recovery Act of 1972, the CoSWMP is a planning document which provides for solid waste disposal management on a Countywide basis. As required by AB 939, the CoSWMP will be superseded by the Countywide Integrated Waste Management Plan (CoIWMP) upon its preparation and approval by the Cities in Los Angeles County, the County Board of Supervisors, and the California Integrated Waste Management Board. The CoIWMP is an integrated solid waste management planning document incorporating the CSE and Summary Plan, and the Cities' and the County's Source Reduction and Recycling Elements, Household Hazardous Waste Elements, and Nondisposal Facility Elements.

1.4.2 Los Angeles County Solid Waste Management Action Plan

In the mid-1980s, Los Angeles County experienced unprecedented population growth and subsequent increases in waste generation and was facing a situation of rapidly decreasing landfill capacity. The dilemma was created due to a lack of development of waste-to-energy facilities caused by the public opposition. As a result, in order to protect the public health and avert a waste disposal crisis, on October 28, 1986, the County Board of Supervisors initiated a comprehensive solid waste management study and implementation program. This and subsequent Board actions resulted in the development of various planning strategies addressing the solid waste management options, economic considerations, and the identification of the best sites for future landfill capacity. These strategies were incorporated in the following planning documents: the Los Angeles County Solid Waste Siting Project (March 1987); the Report on the Solid Waste Management Status and Disposal Options in Los Angeles County (February 1988); and the Preliminary Alternate Site Study (January 1988). These planning strategies were the building blocks which led to the development and adoption of the Los Angeles County Solid Waste Management Action Plan (Action Plan) by the Board of Supervisors in April 1988. The Action Plan was subsequently adopted by the County Sanitation Districts of Los Angeles County Board of Directors, representing 76 Cities in Los Angeles County, in May 1988 and the City of Los Angeles Board of Public Works.

1.4.2.1 Solid Waste Management Siting Project

The Solid Waste Management Siting Project (Siting Project) was the first step in the development of the comprehensive solid waste management study and implementation program conducted in response to the Board of Supervisors' order of October 28, 1986. The Siting Project was developed and completed in March 1987 by the County Department of Public Works in cooperation with the County Sanitation Districts of Los Angeles County. The purpose of the Siting Project was to assist local jurisdictions to carry out their responsibilities with regard to land use planning by providing guidelines for the siting of transfer stations, waste-to-energy facilities, and landfills. The Siting Project also includes a discussion of programs for public involvement at the earliest stages of the planning process to ensure their active awareness of the need as well as participation in the safe management of solid waste.

The criteria contained in the Siting Project has been updated and incorporated in the CSE. The criteria serves as a basis for the selection of potential sites which may be found suitable for development of land disposal and transformation facilities.

1.4.2.2 Report on Solid Waste Management Status and Disposal Options in Los Angeles County

The Report on Solid Waste Management Status and Disposal Options in Los Angeles County was the result of an unprecedented cooperative effort of the staffs of the County Sanitation Districts of Los Angeles County, the City of Los Angeles Department of Public Works - Bureau of Sanitation, and the Los Angeles County Department of Public Works. The report was completed in February 1988 with the purpose of providing the various governing bodies of the City of Los Angeles, the County, and the Sanitation Districts with feasible strategies for the management of the County's solid waste in the future. The report contained the most current information available at that time on the existing solid waste management system in the metropolitan area of Los Angeles County and included projections of future solid waste quantities for use in waste management planning.

1.4.2.3 Preliminary Alternate Site Study

In response to a directive by the Los Angeles County Board of Supervisors to identify the best sites for potential development as land disposal facilities in the County, the staffs of the County Department of Public Works and the County Sanitation Districts of Los Angeles County conducted a preliminary study of potential landfill sites. The January 1988 study used a complex set of criteria which considered several technical, environmental and social factors to analyze 101 potential landfill sites within the metropolitan area of Los Angeles County. From the 101 initial sites, six were eventually selected as the most potentially suitable for new landfills. The sites included Blind Canyon near the Los Angeles-Ventura County Line, Browns Canyon near Chatsworth, Elsmere Canyon near Santa Clarita, Mission/Rustic-Sullivan Canyons in the Santa Monica Mountains, Towsley Canyon near Newhall, and Toyon II in Griffith Park.

1.4.2.4 Action Plan

Based on the results of the above studies, the Board of Supervisors in April 1988 adopted the Solid Waste Management Action Plan. The Action Plan was subsequently adopted by the City of Los Angeles Board of Public Works and the County Sanitation Districts of Los Angeles County Board of Directors which represents 76 cities.

The Action Plan is an integrated regional approach to managing solid waste by incorporating: household hazardous waste programs; source reduction, recycling, and composting programs; public education/awareness programs; and specifically directing the County Department of Public Works to implement those programs that are applicable on a Countywide basis. The Action Plan provides a long-range solution for management of solid waste through the following goals:

- Continue to pursue a balance between public and private waste management operations in the County to provide County residents an efficient and economical method of waste disposal.

- Support the Countywide implementation of residential and commercial recycling and green waste composting and household hazardous waste programs.
- Request the City of Los Angeles to support expansion of Lopez Canyon Landfill and the development of Toyon II Landfill to the extent that is found to be environmentally and technically feasible.
- Develop 50 years of permitted solid waste disposal capacity to be held in public ownership, with appropriate land use protections, for use through public, private, or public/private joint venture operations. Direct the County Director of Public Works, County Chief Administrative Officer, and Chief Engineer and General Manager of the County Sanitation Districts of Los Angeles County to conduct studies to determine the feasibility of public ownership and permitting of landfill sites identified in the Preliminary Alternate Site Study; initiate discussions with property owners regarding the availability of property; secure purchase options as appropriate; and recommend further Board action for public acquisition and permitting of landfills at these sites.
- Perform detailed environmental studies on the six potential landfill sites as identified in the Preliminary Alternate Site Study.
- Support expansions of existing Azusa Land Reclamation, Chiquita Canyon, Puente Hills, Scholl Canyon, and Sunshine Canyon Landfills to the maximum extent technically and environmentally feasible.
- Continue support for public education and awareness programs regarding solid waste issues particularly in the areas of source reduction, recycling, household hazardous waste, and composting.

Since adoption of the Action Plan by the County Board of Supervisors, the County Department of Public Works had developed and implemented the following programs:

- Countywide Household Hazardous Waste Management Program which provides a mechanism for residents throughout Los Angeles County to dispose of their household hazardous waste in a safe and environmentally sound manner.

- County Residential Curbside Recycling Program which has been implemented on a community basis in the County unincorporated area.
- Countywide Public Education/Awareness Program to inform citizens on solid waste management issues throughout Los Angeles County.
- Countywide Backyard Composting Program where Los Angeles County residents are provided and trained on various backyard composting techniques.

As set forth in the Action Plan, the County Department of Public Works and the County Sanitation Districts of Los Angeles County conducted technical studies on the feasibility of landfill facility sites identified by the Preliminary Alternate Site Study (with exception of Elsmere Canyon Site which studies are currently being conducted by the private sector). The results of these studies revealed that Browns Canyon and Toyon II sites are geologically unsuitable as potential landfill sites. However, Blind, Mission/Rustic-Sullivan, and Towsley Canyons remained viable candidates for future consideration as landfill sites. As a result, a draft program Environmental Impact Report was prepared by the County Sanitation Districts of Los Angeles County and distributed for public comments. Based on the results of comments received at public information meetings and from interested groups, a final program Environmental Impact Report was prepared. However, the document was not certified pending resolution of access to these sites.

In reference to the proposed Elsmere Canyon site, in December 1988, Elsmere Corporation, the former project proponent, submitted an application to the County Department of Regional Planning for a Conditional Use Permit for the development of a Class III landfill and materials recovery facility at this site. The originally proposed project property encompassed an area of approximately 2,700 acres of which 1,643 acres are located within the Los Angeles National Forest.

As directed by the County Department of Regional Planning and the U.S. Forest Service, a draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) was prepared for the project.

The draft EIR/EIS (State Clearinghouse No. 89032935) was released for public review in January 1995. The public review period for the project's EIR/EIS ended August 4, 1995, and subsequently the final EIR/EIS was prepared. However, the document was not released due to enactment of the Omnibus Parks and Public Lands Management Act of 1996 (Public Law 104-333, Section 812). This Act prohibits the transfer of any Angeles National Forest lands for use as a solid waste landfill.

As a result, Browning-Ferris Industries (BFI), the current project proponent, is no longer considering the use of the areas within the Angeles National Forest. The scaled-down project would provide for a solid waste disposal capacity of 80 million tons, all within the privately held portion of the Elsmere Canyon site.

In reference to the proposed Mission/Rustic-Sullivan Canyons site, existing Federal law (Public Law 98-506) prohibits the siting of new landfills within the boundary of any unit of the National Park System. Since the Mission/Rustic-Sullivan Canyons are located within the area designated as the Santa Monica Mountains National Recreation Area, which is a unit of the National Park System (Public Law 95-625), the use of these canyons for a landfill site is in conflict with Public Law 98-506. Therefore, these canyons have been removed from further consideration.

In regard to the Towsley Canyon, this site has also been removed from further consideration as directed by the Los Angeles County Board of Supervisors.

1.4.3 Countywide Integrated Waste Management Plan

Besides mandating the waste diversion goals of 25 percent by 1995 and 50 percent by 2000, the California Integrated Waste Management Act of 1989 (AB 939, as amended) established an integrated system of solid waste management in the State, with a hierarchy of waste management practices in the following order and priority: (1) source reduction, (2) recycling and composting, and (3) environmentally safe transformation/land disposal.

AB 939, as amended, requires each County to prepare a Countywide Integrated Waste Management Plan (CoIWMP) consistent with the above hierarchy. As mandated by AB 939, the Los Angeles County CoIWMP will consist of the following:

- a Source Reduction and Recycling Element (SRRE) prepared by each City within the County and the County unincorporated area, which describes how a jurisdiction will meet the waste diversion mandates of 25 percent and 50 percent by the years 1995 and 2000, respectively, through source reduction, recycling, composting, special waste management, and education and public information programs;
- a Household Hazardous Waste Element (HHWE) prepared by each City within the County and the County unincorporated area, which describes the programs and strategies a jurisdiction will implement to reduce the amount of household hazardous waste in the waste stream;
- a Non-Disposal Facility Element (NDFE) prepared by each City within the County and the County unincorporated area, which describes the facilities a jurisdiction proposes to use to divert materials from the waste stream;

- a Summary Plan which provides a summary of all the 88 cities and County SRREs, HHWEs, and NDFEs, as well as, a summary of the existing, planned, and contingency source reduction, recycling, and composting programs identified by the jurisdictions in Los Angeles County which are being and will be implemented to achieve the State-mandated waste diversion goals; and,
- a Countywide Siting Element which addresses the 15-year disposal (landfill and/or transformation) capacity need of the 88 cities and unincorporated communities to safely handle residual solid waste which remains after recycling, composting and other waste diversion activities.

Upon its approval by the California Integrated Waste Management Board, the CoIWMP will supersede the CoSWMP and will govern the solid waste planning activities in Los Angeles County.

1.5 LOS ANGELES COUNTY SOLID WASTE MANAGEMENT COMMITTEE/ INTEGRATED WASTE MANAGEMENT TASK FORCE

The Los Angeles County Solid Waste Management Committee (CoSWMC) has been a guiding force in Countywide solid waste management by providing direction and policy for Los Angeles County. The CoSWMC has been the administrative body for the Los Angeles County Solid Waste Management Plan (CoSWMP). The CoSWMC's specific responsibilities, membership, terms of office, and schedule of meetings are described in Chapter 3.67, Title 3 of the Los Angeles County Code.

The CoSWMC consists of seventeen voting members, each of whom is knowledgeable in one or more aspects of solid waste management or in such related fields as environmental quality, resource or energy conservation, and land use. The membership of the CoSWMC consists of: the Director of the Los Angeles County Department of Public Works; the Director of Los Angeles County Department of Health Services; the Chief Engineer/General Manager of the County Sanitation Districts of Los Angeles County; the Executive Officer of the South Coast Air Quality Management District; the Director of the Bureau of Sanitation of the City of Los Angeles; the Director of Public Works of the City of Long Beach; three members appointed by the Los Angeles County Division of the League of California Cities; three members appointed by the City of Los Angeles; one member appointed by the Greater Los Angeles Solid Waste Management Association; one member appointed by the local chapter of the Institute of Scrap Recycling Industries; and one member each from the general public, an environmental organization, and a business appointed by the Los Angeles County Board of Supervisors.

The responsibilities of the CoSWMC include, but are not limited to, review proposed facilities and services for conformance with the CoSWMP and monitor, analyze, review, and propose legislation as needed.

The role of the CoSWMC was expanded as a result of the California Integrated Waste Management Act of 1989 (AB 939) enactment which mandated that each county convene a task force to assist in coordinating the development of City and County Source Reduction and Recycling Elements (SRREs), Household Hazardous Waste Elements (HHWEs), and Nondisposal Facility Elements (NDFEs), and to assist and advise the county agency responsible for preparation of the CSE and the CoIWMP. On February 27, 1990, the Board of Supervisors considered and sought approval of the Cities in Los Angeles County for the designation of the CoSWMC as the County Integrated Waste Management Task Force (Task Force) as required by Section 40950 of the California Public Resources Code (PRC).

On July 15, 1990, after obtaining the required approval from the majority of the cities in Los Angeles County containing a majority of the County incorporated population, the Board of Supervisors approved and adopted Ordinance No. 90-0096, amending Chapter 3.67, Title 3 of the Los Angeles County Code, designating the CoSWMC as the Task Force. The Director of the County Department of Public Works is designated as the Task Force Chairman.

The Task Force is responsible for the coordination of waste management issues on a Countywide basis. This includes determination of the need for solid waste disposal, transfer and processing facilities, and facilitating the development of multi-jurisdictional marketing arrangements for diverted materials.

In addition, the Task Force guides Los Angeles County and 88 Cities in the County in the development of their respective SRREs, HHWEs, and NDFEs. The Task Force also advises the County's staff on development and administration of the CSE and CoIWMP along with its associated Summary Plan.

Table 1-2 lists the specific responsibilities of the Task Force as mandated by AB 939, as amended, and the Title 3, Chapter 3.67, of the Los Angeles County Code.

1.6 THE ROLE OF THE LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS

The Los Angeles County Department of Public Works is the lead County agency advising the Board of Supervisors on waste management issues. As such, the Department is responsible for the preparation and implementation of the County unincorporated area Source Reduction and Recycling Element, Household Hazardous Waste Element, and Nondisposal Facility Element as well as the Countywide Household Hazardous Waste Management Program, the Countywide Public Education/Awareness Program, the Countywide Backyard Composting Program, and other programs set forth by the Action Plan. The Department is also the responsible agency for the preparation and administration

of the Countywide Siting Element, and the Countywide Integrated Waste Management Plan with its associated Summary Plan.

The Los Angeles County Department of Public Works also acts as the staff to the Task Force. The duties of the Department of Public Works in this capacity include: the oversight of the CoSWMP; coordination of the Cities' and the County's efforts in planning, developing, and implementing programs mandated by AB 939; and assisting in the development of market strategies which would reduce dependence on land disposal and transformation facilities.

**TABLE 1-2
TASK FORCE ROLE AND RESPONSIBILITIES**

A. General Role/Responsibilities
<p>1. Assist in coordinating the development of cities/County SRRs, HIWEs, and NDFEs.</p>
<p>2. Assist and advise the agency responsible for preparation of the CSE and the CoIWMP and its Summary Plan.</p>
<p>3. Five-year review of the CoIWMP by Task Force</p> <p>Prior to the fifth anniversary of the CIWMB's approval of the CoIWMP or its more recent revision, the Task Force shall review the CoIWMP in accordance with provisions of the PRC, Sections 40051, 40052, and 41822, to ensure that it remains consistent with hierarchy of waste management practices defined in the PRC, Section 40051.</p> <ul style="list-style-type: none"> a) On or before the fifth anniversary of the CIWMB's approval of the CoIWMP, the Task Force shall submit written comments on areas of the CoIWMP which require revision, if any, to the County and the CIWMB. b) Within 45 days of receiving the Task Force's comments, the County shall determine if a revision is necessary and notify the Task Force and the CIWMB in writing of its findings. c) The CIWMB shall review the County's findings and determine if additional areas of the CoIWMP require revision, or if no revision is necessary. d) Within 60 days of receipt of the County's findings, the CIWMB shall, at a public hearing, approve or disapprove the County's findings regarding revision of the CoIWMP. e) Within 30 days of its action at the public hearing, the CIWMB shall send a copy of its resolution, approving or disapproving the County's findings, to the Task Force and the County. If the CIWMB has identified additional areas of the CoIWMP that require revision, the CIWMB shall identify those areas in its resolution.

**TABLE 1-2 (continued)
TASK FORCE ROLE AND RESPONSIBILITIES**

<p>B. SRRE, HHWE, and NDFE Responsibilities</p>
<p>1. Advise jurisdictions responsible for SRRE preparation, as needed, and review goals, policies, and procedures for jurisdictions which, upon implementation, will aid in meeting the solid waste management needs of the County, as well as the mandated source reduction and recycling requirements of the PRC, Section 41780.</p>
<p>2. Assist and advise in the review of the SRRE, HHWE, and NDFE and assist jurisdictions in the implementation of the SRRE, HHWE, and NDFE.</p>
<p>3. Provide technical guidance and information regarding source reduction, waste diversion, and recycling to local jurisdictions during preparation of the SRRE, HHWE, and NDFE. Such information may be presented to the general public at public hearings and upon request by members of local governments and community organizations.</p>
<p>4. To ensure a coordinated and cost-effective regional recycling system, the Task Force shall:</p> <ul style="list-style-type: none"> a) Identify solid waste management issues of Countywide or regional concern. b) Determine the need for solid waste collection systems, processing facilities, and marketing strategies that can serve more than one local jurisdiction within the region. c) Facilitate the development of multi-jurisdictional arrangements for the marketing of recyclable materials. d) To the extent possible, facilitate resolution of conflicts and inconsistencies between or among jurisdictions SRRE, HHWE, and NDFE.
<p>5. Review preliminary drafts of SRREs, HHWEs, and NDFEs.</p> <ul style="list-style-type: none"> a) Take into consideration the issues of Countywide or regional concerns as required by the PRC, Section 40950(c). b) Send copies of the Task Force's written comments on the preliminary drafts of the SRRE, HHWE, and NDFE simultaneously to the CIWMB and to the jurisdiction that prepared the preliminary draft SRRE, HHWE, and NDFE within 45 days of receipt of the preliminary draft (90 days for NDFE). c) Other reviewing agencies, as applicable, (the County, adjacent cities, any association of regional governments, and the CIWMB) shall review and send their written comments to the jurisdiction that prepared the preliminary draft SRRE, HHWE, and NDFE. A copy of the CIWMB's written comments shall be sent simultaneously to the Task Force.
<p>6. Review the final draft of the SRREs and HHWEs.</p> <ul style="list-style-type: none"> a) The Task Force shall provide written comments on the final draft to the CIWMB and the jurisdiction responsible for preparation of the final draft within 30 days of receipt of the final draft. b) If deficiencies are indicated in the Task Force's comments, the Task Force shall meet with the jurisdiction to resolve them. c) If no resolution between the Task Force and the jurisdiction can be achieved, the Task Force shall send a letter to the jurisdiction and the CIWMB indicating the remaining deficiencies of the SRRE and HHWE.

**TABLE 1-2 (continued)
TASK FORCE ROLE AND RESPONSIBILITIES**

<p align="center">C. CSE and CoIWMP and its Summary Plan Responsibilities</p>
<p>1. The Task Force, within 30 days of its establishment, and, as required by the California Code of Regulations (CCR), Title 14, Section 18777, shall determine and verify the remaining permitted combined disposal capacity of existing solid waste facilities in the County.</p>
<p>2. Assist and advise the agency responsible for preparation of the CSE, the CoIWMP and its Summary Plan, as needed, and develop goals, policies, and procedures which are consistent with guidelines and regulations adopted by the CIWMB, to guide the development of the CSE of the CoIWMP.</p>
<p>3. To ensure that the County of Los Angeles adequately plans for meeting future solid waste handling and disposal needs, coordinate the preparation and review of the CSE, the CoIWMP and its Summary Plan prior to their circulation to reviewing agencies and to the CIWMB.</p>
<p>4. Review the preliminary draft of the CSE, the CoIWMP and its Summary Plan. Send written comments simultaneously to the CIWMB and to the agency responsible for preparation of the CSE, the CoIWMP and its Summary Plan within 45 days of receipt of the preliminary draft.</p>
<p>5. Review the final draft of the CSE, the CoIWMP and its Summary Plan.</p> <ul style="list-style-type: none"> a) Send written comments simultaneously to the agency responsible for preparation of the CSE, and the CoIWMP and its Summary Plan and the CIWMB within 45 days of receipt of the final draft. b) Where deficient areas have been identified in the Task Force's written comments, the responsible agency shall submit a revised final draft. c) The Task Force shall review the revised final draft. If deficiencies still remain, the Task Force shall meet with the agency to resolve them. d) If no resolution can be achieved, the Task Force shall send a letter to the agency and the CIWMB indicating the remaining deficiencies of the CSE, and the CoIWMP and its Summary Plan within 30 days of receipt of the revised final draft of the CSE, and the CoIWMP and its Summary Plan. e) If the CSE or the CoIWMP and its Summary Plan are deemed adequate, the Task Force shall notify the County and the CIWMB, in writing, within 30 days of its determination.
<p align="center">D. Consistency with the Countywide Solid Waste Management Plan and CoIWMP</p>
<p>To insure consistency with the CoSWMP or CoIWMP, all proponents of new solid waste facilities (solid waste stations and disposal facilities) or expansion of existing solid waste facilities must obtain a Finding of Conformance from the Task Force for consistency with the CoSWMP and the CoIWMP, as applicable.</p>

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CHAPTER 2 GOALS AND POLICIES

2.1 PURPOSE AND REQUIREMENTS

This chapter presents goals and policies which have been developed to provide a framework to address the 15 years (1995-2010) of disposal/transformation capacity need of the 88 cities in Los Angeles County and the County unincorporated communities. The goals and policies are consistent with the requirements of Sections 40050 et seq. of the California Public Resources Code (PRC). The specific requirements for the content of this chapter are drawn from the California Code of Regulations (CCR), Title 14, Division 7, Chapter 9, Article 6.5, Section 18755.1 and Section 18756.7.

This chapter also describes the agencies/organizations responsible for implementing these goals and policies together with an implementation schedule. Additionally, the chapter identifies the responsible agencies for the administration of the CSE and the required funding source.

2.2 SPECIFIC REQUIREMENTS

Section 18755.1 of the CCR requires the following:

- a) The local task force shall develop goals, policies, and procedures to provide guidance to the county in preparation of the countywide siting element. Based upon this guidance, the countywide siting element shall include a statement on the goals and policies established by the county.
- b) The goals shall be consistent with the mandates of Section 40051 of the PRC. The goals shall describe the method for the environmentally safe disposal of solid waste generated within the boundaries of the county that remains after waste diversion activities.
- c) The policies shall specify any programs, regulatory ordinances, actions, or strategies that may be established to meet the goals described in subdivision (b) of this section and to assist in the siting of solid waste disposal facilities. An implementation schedule shall be included that identifies tasks necessary to achieve each selected goal.

Also, Section 18756.7 of Title 14 of the CCR requires that the Siting Element include identification of local government, local task forces, regional agencies, organizations, and other, responsible for implementing the solid waste disposal facility siting program. Additionally, the Element shall include implementation schedules addressing each task

identified for a minimum of fifteen years, and identification of revenue sources to support administration and maintenance of the Siting Element.

2.3 GOALS AND POLICIES FOR THE COUNTYWIDE SITING ELEMENT

Pursuant to Section 18755.1, Title 14 of the CCR, Goals are the desired results that planning endeavors are directed towards. The goals of the CSE presented here are designed to protect public health and safety by addressing the need for adequate environmentally sound solid waste disposal capacity; to conserve natural resources and to protect the environment by emphasizing source reduction, recycling, and composting.

Pursuant to Section 18755.1, Title 14 of the CCR, Policies are the strategies which will be implemented to achieve the goals. The policies presented here are based upon environmentally sound, and technically and economically feasible concepts.

2.4 GOALS AND POLICIES

The following goals and policies are either being or may have to be implemented by the cities in Los Angeles County and the County to meet the mandates of the California Integrated Waste Management Act of 1989, as amended. These goals are consistent with those listed in the Action Plan discussed in Chapter 1, Section 1.4.2 of this document which, subject to the following, are hereby made a part of the Goals and policies of the CSE.

2.4.1 Goal

To protect the health, welfare, and safety of all citizens by addressing the disposal need of the 88 cities in Los Angeles County and the County unincorporated communities during the 15-year planning period through development of environmentally safe and technically feasible disposal facilities for solid waste which cannot be reduced, recycled, or composted.

Policies To Enhance In-County Landfill Disposal Capacity

- The County will, when appropriate, assist the project proponent to expedite the permitting and development of a scaled down Elsmere Canyon Landfill (which excludes Angeles National Forest land) provided the project is found to be environmentally sound and technically feasible.
- The County and the County Sanitation Districts of Los Angeles County (CSD) will coordinate efforts for the land acquisition, permitting and development of Blind Canyon Landfill provided this site is found to be environmentally sound and technically feasible.

- The County will assist the project proponent to expedite, where appropriate, the expansion of the following landfills, provided these sites are found to be environmentally sound and technically feasible:
 - Antelope Valley and Lancaster Landfills in the County unincorporated area of the Antelope Valley
 - Chiquita Canyon Landfill in the County unincorporated area of the Santa Clarita Valley
 - Puente Hills Landfill in the County unincorporated area of the San Gabriel Valley
 - The expansion of the Sunshine Canyon Landfill located in the northern San Fernando Valley within the City of Los Angeles and the County unincorporated area.

- The cities in Los Angeles County, the County, and the Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force will encourage and assist other jurisdictions in developing, to the maximum extent feasible, disposal capacity available for expansion within their boundaries, provided it is technically feasible and environmentally safe. The jurisdiction where a specific facility is located will make the final determination as to the use of this capacity.

Specifically, the jurisdictions in Los Angeles County will encourage the following:

- The full development of potentially available capacity at the Scholl Canyon Landfill in the City of Glendale.
 - The full development of potentially available capacity at the Savage Canyon Landfill in the City of Whittier.
 - The full development of potentially available capacity at the Burbank City Landfill in the City of Burbank.
- The cities in Los Angeles County, the County, and the Task Force will, when appropriate, expedite, streamline, and coordinate all permitting necessary for the development of new and/or expanded in-County land disposal facility projects, provided they are found to be environmentally and technically feasible.
 - The cities in Los Angeles County and the County will promote land use policies to discourage incompatible land uses between the existing, expansion of existing, and new solid waste management facilities identified in the CSE and adjacent areas.

Policies To Facilitate Utilization of Out-of-County/Remote Disposal Facilities

- The cities in Los Angeles County, the County, and the Task Force will support and promote policies which would facilitate the use of out-of-County/remote disposal facilities.
- The jurisdictions in Los Angeles County and the Task Force will actively seek and identify out-of-County disposal opportunities in order to supplement and extend the life of in-County disposal capacity.
- The cities in Los Angeles County, the County, and the Task Force will support and coordinate the development of those out-of-County/remote disposal facility projects that prove to be environmentally sound, and technologically feasible.
- The cities in Los Angeles County, the County, and the Task Force will support and coordinate the development of infrastructure necessary for solid waste transfer and rail loading to out-of-County/remote disposal facilities.
- The cities in Los Angeles County, the County, and the Task Force will promote and/or sponsor legislation to streamline the permit process in order to facilitate the development of waste-by-rail disposal systems.
- The cities in Los Angeles County, the County, and the Task Force will, when appropriate, expedite, streamline, and coordinate all permitting necessary for the development of proposed solid waste stations with rail-loading capability which are necessary to provide access to remote and/or Out-of-County disposal sites.

2.4.2 Goal

To foster the development of transformation and other innovative solid waste disposal technologies as alternatives to land disposal.

Policies:

- The cities in Los Angeles County, the County, the CSD, and the Task Force will support and coordinate the development of transformation, and other innovative waste disposal technologies which would reduce dependence on landfills while providing for the solid waste disposal need of Los Angeles County residents at a reasonable cost.
- The cities in Los Angeles County, the County, the CSD, and the Task Force will support and promote legislation and regulations which would promote development of waste-to-energy facilities by providing economic incentives.

- The cities in Los Angeles County, the County, the CSD, and the Task Force will introduce, support, and promote legislation and regulations which would promote development of transformation facilities by removing transformation from the definition of disposal and providing full diversion credit towards the state's waste reduction mandates.
- The cities in Los Angeles County, the County, and the Task Force will encourage private sector development of innovative waste disposal technologies by assisting the private sector in locating appropriate site(s) and providing information on available government funds.
- The Task Force will maintain and provide information on alternative waste disposal technologies to any requesting entity.
- The cities in Los Angeles County, the County, and the Task Force will, when appropriate, expedite, streamline, and coordinate permitting necessary for the development of facilities which utilize alternative disposal technologies, provided they are found to be environmentally and technically feasible.

2.4.3 Goal

To protect the economic well-being of Los Angeles County by ensuring that the cities and the County unincorporated communities are served by an efficient and economical public/private solid waste disposal system.

Policies:

- The cities in Los Angeles County, the County, and the Task Force, as well as the CSD will share resources and promote and encourage interjurisdictional cooperation on solid waste issues so that Los Angeles County is served by an efficient and economical solid waste management system.
- The cities in Los Angeles County, the County, the CSD, and the Task Force will cooperate and share resources to increase Los Angeles County's influence at State and Federal levels by developing and adopting common positions on solid waste issues of Federal and State legislation and regulation.
- The cities in Los Angeles County and the County will encourage both public and private sector participation in finding solutions to meet Countywide solid waste disposal challenges.
- The cities in Los Angeles County and the County will work towards maintaining the existing public/private solid waste disposal system in order to provide reasonable disposal costs through competitive market forces.

2.4.4 Goal

To provide siting criteria that considers and provides for the environmentally safe and technically feasible development of solid waste disposal facilities.

Policies:

- The cities in Los Angeles County, the County, and the Task Force will support and promote legislation and regulation which would provide uniform minimum standards for State agencies for establishment of environmental and regulatory requirements for all disposal and transformation facilities.
- The cities in Los Angeles County and the County will coordinate solid waste management efforts through the Task Force so that information may be shared on a Countywide basis.
- It will be the cities in Los Angeles County, the County, and the Task Force's policy to ensure appropriate public participation in land use permitting decisions pertaining to the development of disposal facilities.
- The Task Force will ensure that all new or expansions of existing solid waste disposal facilities conform to the siting criteria developed and contained in the CSE, through the process of Finding of Conformance with the CSE which will be required for expansion of an existing disposal facility or development of new disposal facilities. The Task Force will also require a revised Finding of Conformance with the CSE whenever an existing disposal facility requires a revised/modified Solid Waste Facility Permit.
- The cities in Los Angeles County and the County, through their respective Local Enforcement Agencies, will work toward achieving uniform compliance with all Federal, State, and local environmental regulations at all existing solid waste land disposal and transformation facilities.
- The Task Force will assist local jurisdictions and the private sector by providing technical assistance in land use planning, when appropriate, and by providing the criteria presented in this document for the siting of transformation and land disposal facilities.

2.4.5 Goal

To reduce the volume (tonnage) of solid waste requiring disposal/ transformation by continuing to implement and expand source reduction, recycling, composting, and public education programs.

Policies:

- The cities in Los Angeles County and the County will continue to implement and maintain commercial and residential recycling, composting, public outreach, and other equivalent programs in their jurisdictions
- The County will implement, maintain, and where appropriate, expand the Countywide Yard Waste Management Program in coordination with the cities in Los Angeles County.
- The County, in conjunction with the CSD, and all participating cities, will maintain the Countywide Household Hazardous Waste Collection and Public Education Program.
- The County in coordination with the cities of Los Angeles County and the private sector will continue with implementation of the Countywide Public Education Program addressing all aspects of an integrated solid waste management system.

2.4.6 Goal

To conserve Class III landfill capacity through diversion of inert waste, disposal of inert waste at unclassified landfills, increased waste disposal compaction rates, and use of green waste and other appropriate materials for landfill daily cover.

Policies:

- The cities in Los Angeles County, and the County, as a part of the building/construction permit process will encourage and/or require, when appropriate, diversion of inert waste from being disposed at Class III landfills to the maximum extent environmentally and economically feasible.
- The cities in Los Angeles County, the County, the Task Force, and Local Enforcement Agencies, as part of their permit/Finding of Conformance process will require, when appropriate, Class III land disposal facility operators to implement measures to minimize disposal of inert waste at their facility.
- The cities in Los Angeles County, the County, the Task Force, and Local Enforcement Agencies, as part of their permit/Finding of Conformance process, will require, when appropriate, Class III landfill operators to maximize the density of disposed materials.

- The cities in Los Angeles County, the County, and the Task Force, and Local Enforcement Agencies, as part of their permit/Finding of Conformance process, will require, when appropriate, Class III landfill operators to use the balefilling process if it results in landfill space savings and when economically feasible.
- The cities in Los Angeles County, the County, and the Task Force, as part of their permit/Finding of Conformance process, will encourage Class III landfill operators to use green waste or other alternative daily cover materials, including but not limited to tarps and foams, for use as landfill daily cover subject to approval of the appropriate Local Enforcement Agency and the State.

2.4.7 Goal

To promote and encourage waste diversion activities at disposal facilities.

Policies:

- The cities in Los Angeles County, the County, the Task Force, and Local Enforcement Agencies, as part of their permit/Finding of Conformance process, will encourage all disposal facility operators within their jurisdictions to institute waste salvage/diversion operations in compliance with all applicable rules and regulations. The waste salvage/diversion operations shall recover those waste materials which can be feasibly and economically reused, recycled or composted.
- The cities in Los Angeles County, the County, the Task Force, and Local Enforcement Agencies as part of their permit/Finding of Conformance process will require all disposal facility operators to acquire and provide to the County all data necessary for cities in Los Angeles County and the County to comply with the mandates of the California Integrated Waste Management Act of 1989 (Assembly Bill 939), as amended.

2.4.8 Goal

To promote adequate markets for recycled materials and compost products.

Policies:

- The cities in Los Angeles County and the County will coordinate efforts and work with the State in establishing new and/or expansion of the existing Recycling Market Development Zones, in order to provide economic and other incentives which will encourage the development of markets for the diverted materials and/or the siting of solid waste management facilities within Los Angeles County.

- The cities in Los Angeles County and the County will encourage, where appropriate, businesses using alternative disposal/diversion technology to participate in the Recycling Market Development Zone Program or other programs that may become available.

2.5 IMPLEMENTATION SCHEDULE

Pursuant to Sections 18755.1 and 18756.7, Title 14 of the CCR, the implementation schedule for tasks identified in the CSE is provided in Table 2-1, Implementation Responsibility and Schedule. The schedules indicated in Table 2-1 are broad estimates and are subject to a variety of factors.

The following section presents an outline of the implementation schedule for the tasks associated with the CSE. For ease of reference, the implementation schedule of the goals and policies for the CSE are listed in the same order in which they appear in Section 2.4 of this Chapter.

The left column of Table 2-1 lists the tasks to be implemented. Moving to the right, the next column indicates the role of each of the major entities responsible for activities listed: Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force (TF); County Government (County); Incorporated city or cities in the County (Cities); County Sanitation Districts of Los Angeles County (CSD); and Private Industry (PI).

In the implementation process, each entity will act in one of the following three capacities:

1. Lead entity (L) - The entity or entities with primary responsibility for successful implementation of the activity.
2. Support entity (S) - The entity or entities providing resources to assist the lead entity or entities implementing an activity.
3. Advisory entity (A) - The entity or entities serving in an advisory or consultative capacity.

The next three columns indicate the time periods in which CSE activities are to be implemented. The first column represents the period 1995-2000; the second column represents the period 2001-2005; and the third column represents the period 2006-2010. An "X" in a particular time period column indicates that work will be conducted for the indicated activity during that five-year time period. It should be noted that implementation of some activities must be maintained on a continuous basis throughout the 15-year planning period.

2.6 ADMINISTERING AGENCY AND FUNDING SOURCE

Under the auspices of the Los Angeles County Board of Supervisors, the Los Angeles County Department of Public Works is responsible for preparation, maintenance and administration of the Countywide Siting Element. Pursuant to Chapter 20.88 of the Los Angeles County Code, funding for these activities is provided through imposition of a "tipping fee" surcharge, referred to as the Solid Waste Management Fee, on each ton of solid waste disposed at solid waste facilities located in Los Angeles County, and on each ton of solid waste that is exported out of the County for disposal at transformation and/or landfill facilities.

**TABLE 2-1
IMPLEMENTATION RESPONSIBILITY AND SCHEDULE**

Implementation Task	Responsible Entity					Schedule		
	TF	County	Cities	CSD	PI	1995-2000	2001-2005	2006-2010
GOALS AND CORRESPONDING POLICIES								
Goal 2.4.1: Protect the health, welfare, and safety of all Los Angeles County citizens by addressing their solid waste disposal need.								
Policies to Enhance In-County Landfill Disposal Capacity								
• Expedite the permitting and development of a scaled down Elsmere Canyon landfill.	A	S	S	A	L	X		
• Coordinate development of Blind Canyon.	A	L	S	L	A	X	X	
• Expedite development of Antelope Valley, Lancaster, Chiquita Canyon, Puente Hills, and Sunshine Canyon landfill expansions	A	S	S	L	L	X		
• Assist jurisdictions in developing disposal capacity available for expansion within their boundaries.	S	S	L	A	A	X	X	X
• Expedite, streamline and coordinate necessary permitting for the development of new and/or expanded in-County disposal facility projects.	S	S	S	L	L	X	X	
• Promote land use policies aimed at discouraging incompatible uses adjacent to landfill sites.	A	L	L	A	A	X	X	X

Responsible Entity

- TF - Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force
 - County - County Government
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-
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 - L - Lead Entity
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**TABLE 2-1 (CONTINUED)
IMPLEMENTATION RESPONSIBILITY AND SCHEDULE**

Implementation Task	Responsible Entity						Schedule			
	TF	County	Cities	CSD	PI		1995-2000	2001-2005	2006-2010	
GOALS AND CORRESPONDING POLICIES										
Policies to facilitate utilization of put-of-County/remote disposal facilities										
<ul style="list-style-type: none"> Support and promote policies which would maximize the use of out-of-County/remote disposal sites. 	S	S	S	L	L		X	X	X	
<ul style="list-style-type: none"> Actively seek and identify out-of-County disposal opportunities in order to supplement and extend the life of in-County disposal capacity. 	L	L	L	L	S		X	X	X	
<ul style="list-style-type: none"> Support and coordinate the development of those out-of-County/remote disposal facility projects that prove to be environmentally sound and technologically feasible. 	S	S	S	L	L		X	X	X	
<ul style="list-style-type: none"> Support and coordinate the development of infrastructure necessary for solid waste transfer and rail-loading to out-of-County/remote disposal facilities 	S	L	L	L	L		X	X	X	
<ul style="list-style-type: none"> Promote and/or sponsor legislation to streamline the permit process in order to facilitate the development of waste-by-rail solid waste disposal systems 	S	L	L	L	L		X	X	X	
<ul style="list-style-type: none"> Expedite, streamline, and coordinate all permitting necessary for solid waste stations with rail-loading capability necessary to provide access to out-of-County/remote disposal sites. 	S	L	L	A	A		X	X	X	

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**TABLE 2-1 (CONTINUED)
IMPLEMENTATION RESPONSIBILITY AND SCHEDULE**

Implementation Task	Responsible Entity					Schedule			
	TF	County	Cities	CSD	PI	1995-2000	2001-2005	2006-2010	
GOALS AND CORRESPONDING POLICIES									
Goal 2.4.2: Foster the development of transformation and other innovative solid waste disposal technologies as alternatives to land disposal.									
<ul style="list-style-type: none"> Support and coordinate the development of transformation and other innovative waste disposal technologies which would reduce dependence on landfills. 	S	S	S	L	L	X	X	X	
<ul style="list-style-type: none"> Support and promote legislation and regulations which would promote development of waste-to-energy facilities by providing economic incentives. 	S	L	L	L	L	X	X	X	
<ul style="list-style-type: none"> Introduce, support and promote legislation and regulations which would promote development of transformation facilities by removing transformation from the definition of disposal and providing full diversion credit toward the State's waste reduction mandates. 	S	L	L	L	L	X	X	X	
<ul style="list-style-type: none"> Encourage private sector development of innovative waste disposal technologies. 	S	S	S	A	L	X	X	X	
<ul style="list-style-type: none"> Maintain and provide information on alternative waste disposal technologies to any requesting entity. 	L	S	S	A	A	X	X	X	
<ul style="list-style-type: none"> Expedite, streamline, and coordinate permitting necessary for the development of facilities which utilize alternative disposal technologies. 	S	L	L	L	L	X	X	X	

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**TABLE 2-1 (CONTINUED)
IMPLEMENTATION RESPONSIBILITY AND SCHEDULE**

Implementation Task	Responsible Entity					Schedule			
	TF	County	Cities	CSD	PI	1995-2000	2001-2005	2006-2010	
GOALS AND CORRESPONDING POLICIES									
Goal 2.4.3: Protect the economic well-being of Los Angeles County by ensuring service by an efficient and economical solid waste disposal system.									
<ul style="list-style-type: none"> Promote interjurisdictional cooperation. 	L	L	L	L	S	X	X	X	
<ul style="list-style-type: none"> Cooperate to increase Los Angeles County's influence at State and Federal levels by developing and adopting common positions on solid waste issues. 	L	L	L	L	A	X	X	X	
<ul style="list-style-type: none"> Encourage public and private sector participation in finding solutions to Countywide solid waste disposal challenges. 	S	L	L	L	L	X	X	X	
<ul style="list-style-type: none"> Maintain the existing public/private solid waste disposal system. 	A	L	L	L	S	X	X	X	

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**TABLE 2-1 (CONTINUED)
IMPLEMENTATION RESPONSIBILITY AND SCHEDULE**

Implementation Task	Responsible Entity					Schedule		
	TF	County	Cities	CSD	PI	1995-2000	2001-2005	2006-2010
GOALS AND CORRESPONDING POLICIES								
Goal 2.4.4: Provide siting criteria that considers and provides for the environmentally safe and technically feasible development of solid waste disposal facilities.								
• Support and promote legislation establishing Statewide standards for all disposal and transformation facilities.	S	L	L	S	S	X	X	X
• Coordinate solid waste management efforts through the Task Force to share information Countywide.	S	L	L	A	A	X	X	X
• Ensure appropriate public participation in siting decisions.	L	L	L	A	A	X	X	X
• Through the Finding of Conformance process, ensure all new or expansions of existing facilities conform with CSE siting criteria.	L	S	S	A	A	X	X	X
• Achieve uniform compliance with all Federal, State and local regulations at all existing disposal and transformation facilities.	S	L	L	S	S	X	X	X
• Provide technical assistance in land use planning and the criteria for siting transformation and landfill facilities.	L	S	S	A	A	X	X	X

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**TABLE 2-1 (CONTINUED)
IMPLEMENTATION RESPONSIBILITY AND SCHEDULE**

Implementation Task	Responsible Entity				Schedule			
	TF	County	Cities	CSD	PI	1995-2000	2001-2005	2006-2010
GOALS AND CORRESPONDING POLICIES								
Goal 2.4.5: Reduce the quantity of waste requiring disposal or transformation by continuing to implement and expand source reduction, recycling, composting, and public education.								
<ul style="list-style-type: none"> Implement and maintain commercial and residential recycling, composting, public outreach, and equivalent programs. 	S	L	L	A	S	X	X	X
<ul style="list-style-type: none"> Implement, maintain, and where appropriate, expand the Countywide Yard Waste Management Program in coordination with cities in the County. 	A	L	S	A	S	X	X	X
<ul style="list-style-type: none"> Maintain the Countywide Household Hazardous Waste Collection and Public Education Program. 	A	L	S	L	S	X	X	X
<ul style="list-style-type: none"> Continue the Countywide Public Education Program addressing all aspects of an integrated solid waste management system. 	A	L	S	A	S	X	X	X

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**TABLE 2-1 (CONTINUED)
IMPLEMENTATION RESPONSIBILITY AND SCHEDULE**

Implementation Task	Responsible Entity						Schedule		
	TF	County	Cities	CSD	PI		1995-2000	2001-2005	2006-2010
GOALS AND CORRESPONDING POLICIES									
Goal 2.4.6: Protect Class III landfill capacity through inert waste diversion, inert waste disposal at unclassified landfills, increased waste disposal compaction rate, and green waste and other appropriate materials usage for landfill daily cover.									
<ul style="list-style-type: none"> As a part of the building/construction permit process, encourage and/or require inert waste diversion to the maximum extent feasible. 	A	L	L	A	S		X	X	X
<ul style="list-style-type: none"> Require Class III landfill operators to implement measures minimizing inert waste disposal. 	L	L	L	S	S		X	X	X
<ul style="list-style-type: none"> Require Class III landfill operators to maximize density of disposed materials. 	L	L	L	S	S		X	X	X
<ul style="list-style-type: none"> Require all Class III landfill operators to use balefilling process if it results in landfill space savings and when economically feasible. 	L	L	L	S	S		X	X	X
<ul style="list-style-type: none"> Require Class III landfill operators to use green waste or other alternative daily cover materials for use as landfill daily cover. 	L	L	L	S	S		X	X	X

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**TABLE 2-1 (CONTINUED)
IMPLEMENTATION RESPONSIBILITY AND SCHEDULE**

Implementation Task	Responsible Entity						Schedule		
	TF	County	Cities	CSD	PI		1995-2000	2001-2005	2006-2010
GOALS AND CORRESPONDING POLICIES									
Goal 2.4.7: Promote and encourage waste diversion activities at disposal facilities.									
<ul style="list-style-type: none"> Disposal facility operators will be encouraged to institute waste salvage/diversion operations in compliance with all applicable rules and regulations. Require disposal facility operators to acquire and provide data necessary for cities in Los Angeles County and the County to comply with the mandates of Assembly Bill 939. 	L	L	L	S	S		X	X	X
Goal 2.4.8: Promote adequate markets for recycled materials and compost products.									
<ul style="list-style-type: none"> Establish recycling Market Development Zones to provide economic and other incentives which will encourage the development of markets for the diverted materials and/or the siting of solid waste management facilities within Los Angeles County. Encourage, where appropriate, businesses using alternative disposal/diversion technology to participate in the Recycling Market Development Zone Program or other programs that may become available. 	S	L	L	A	A		X	X	X
	A	L	L	A	A		X	X	X

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**TABLE 2-1 (CONTINUED)
IMPLEMENTATION RESPONSIBILITY AND SCHEDULE**

Implementation Task	Responsible Entity					Schedule			
	TF	County	Cities	CSD	PI	1995-2000	2001-2005	2006-2010	
COUNTYWIDE SITING ELEMENT ADMINISTRATION									
• Process Finding of Conformance applications.	L	S	A	A	A	X	X	X	
• Update disposal quantity statistics on a quarterly basis.	A	L	A	S	S	X	X	X	
• Prepare revisions/updates of the Countywide Siting Element.	A	L	S	A	A	X	X	X	

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CHAPTER 3
EXISTING SOLID WASTE DISPOSAL FACILITIES

3.1 PURPOSE AND REQUIREMENTS

This chapter identifies and provides detailed information on the existing permitted solid waste disposal facilities located within Los Angeles County. Also included is a description and location map of each facility.

3.2 SPECIFIC REQUIREMENTS

The specific requirements for the description of existing solid waste disposal facilities can be found in Section 18755.5 of Title 14 of the CCR which requires that the CSE contain the following:

- (a) The Siting Element shall include an identification of each permitted solid waste disposal facility located countywide. The description shall include, but not be limited to, the following information for each facility:
 - (1) the name of the facility and the name of the facility owner and operator;
 - (2) the facility permit number, permit expiration date, date of last permit review, and an estimate of remaining site life, based on remaining disposal capacity;
 - (3) the maximum permitted daily and yearly rates of waste disposal, in tons and cubic yards;
 - (4) the average rate of daily waste receipt, in tons and cubic yards;
 - (5) the permitted types of wastes; and,
 - (6) the expected land use for any site being closed or phased out within the 15-year planning period.
- (b) The Siting Element description shall include a map showing each existing permitted solid waste disposal facility countywide. The map shall be drawn to scale and the scale legend included on the map sheet. The type of map may be a 7.5 or 15 minute USGS quadrangle.

3.3 SOLID WASTE DISPOSAL FACILITIES

A solid waste disposal facility is defined as a facility at which solid waste is managed through land disposal and/or transformation processes. Solid waste disposal facilities include only solid waste landfills and transformation facilities.

3.3.1 Solid Waste Landfill Facilities

A solid waste landfill facility is a disposal site which employs an engineered method of disposing of solid waste on land in a manner that minimizes environmental hazards as mandated by Federal, State, and local laws and regulations. Solid waste landfill facilities include only Class III landfills and unclassified landfills.

- **Class III Landfills**

Class III landfills are those facilities which must be located where site characteristics and containment structures isolate solid waste from the waters of the State. They must meet the requirements of the Federal Resource Conservation and Recovery Act, Subtitle D, and the CCR, Title 23, Section 2533, as well as those mandated by Sections 17000 et seq., of Title 14 of the CCR and other regional and local rules and regulations.

Current regulations require all Class III landfills to include, at a minimum, environmental control systems such as subdrain systems, leachate collection and removal systems, landfill gas control and removal systems, surface water drainage systems, and other environmental control systems. Additionally, since 1993, all new Class III landfills and expansions of existing Class III landfills must be provided with dual liner systems which consist of an upper synthetic flexible liner and a lower compacted soil liner component at least two feet thick and having a maximum hydraulic conductivity of 1×10^{-7} cm/sec (or 0.1 feet/year). These control systems and a number of strict monitoring requirements are formulated to insure the quality of surface and ground water and other environmental resources while protecting the public health and safety.

Chapter 6 and Appendix 6-A discuss the siting criteria to be applied to proposed new or expansions of existing solid waste landfill sites.

- **Unclassified Landfills**

Unclassified landfills, also referred to as inert landfills, are permitted to accept inert waste only. Section 18720 (32) of Title 14 and Section 2524 of Title 23 of the CCR define inert waste as that type of non-liquid solid waste which does not contain hazardous waste or soluble pollutants at concentrations in excess of applicable water quality objectives established by a California Regional Water Quality Control Board,

and does not contain significant quantities of decomposable waste. Inert waste includes materials such as soil, concrete, asphalt, and other construction and demolition debris. Unclassified landfills must be designed and operated in accordance with all laws and regulations mandated by State, regional, and local jurisdictions. Chapter 6 and Appendix 6-A discuss in detail the siting criteria to be applied to proposed new or expansion of existing unclassified landfill sites.

3.3.2 Permitted Solid Waste Landfill - Permitted Landfill

Permitted solid waste landfill, or "**permitted landfill**," for the purpose of the CSE and in concert with the requirements of Section 18720 of Title 14 of the CCR, is defined as a solid waste landfill facility for which there exists:

- a current Solid Waste Facility Permit issued by the Local Enforcement Agency and concurred by the California Integrated Waste Management Board,
- a Land Use/Conditional Use Permit issued by the local jurisdiction's land use authority, and,
- a Waste Discharge Requirements permit issued by the appropriate California Regional Water Quality Control Board.

3.3.3 Transformation Facilities

A transformation facility is defined in Section 18720 of the CCR as "a facility whose principal function is to convert, combust, or otherwise process solid waste by incineration, pyrolysis, destructive distillation, or gasification, or to chemically or biologically process solid wastes, for the purpose of volume reduction, synthetic fuel production, or energy recovery. Transformation facility does not include a composting facility."

Waste-to-energy is a transformation process which has been identified as an extremely effective alternative to divert the largest amount of solid waste from landfills. Waste-to-energy facilities are also subject to strict environmental standards including those mandated by the Federal Clean Air Act, Federal Clean Water Act, and other State, regional, and local laws and regulations. These facilities have been proven to be technically and environmentally feasible waste management alternatives to land disposal.

Chapter 5 and Chapter 7 discusses in detail existing transformation technologies and other issues concerning the establishment of transformation facilities in Los Angeles County. Chapter 6 and Appendix 6-A discuss in detail the siting criteria to be applied to new transformation facility sites.

- **Permitted Transformation Facilities**

A permitted transformation facility is defined as a transformation facility for which there exists:

- a current Solid Waste Facility Permit issued by the Local Enforcement Agency and concurred by the California Integrated Waste Management Board,
- a Land Use/Conditional Use Permit issued by the local jurisdiction's land use authority,
- a Permit to Operate issued by the local Air Quality Management/Air Quality Pollution Control District, and, if applicable,
- a Waste Discharge Requirements permit issued by the appropriate California Regional Water Quality Control Board.

3.3.4 Permitted Solid Waste Disposal Capacity

For the purpose of the CSE, and in concert with Section 18720 of Title 14 of the CCR, the following definitions shall apply:

- **Permitted Disposal Capacity - Permitted Capacity**

Permitted disposal capacity, or "**permitted capacity**," is the total quantity of solid waste (in cubic yards and/or tons) which a **permitted landfill** or **permitted transformation facility** is allowed to receive in accordance with, the terms, conditions, and limitations of the facility's current Solid Waste Facility Permit, Land Use/Conditional Use Permit, Waste Discharge Requirements Permit, and the Permit to Operate, whichever is less.

- **Maximum Permitted Daily Capacity**

Maximum permitted daily capacity is the daily quantity of solid waste (in tons and/or cubic yards) which a **permitted landfill** or **permitted transformation facility** is allowed to receive in accordance with the terms, conditions, and limitations of the facility's current Solid Waste Facility Permit, Land Use/Conditional Use Permit, Waste Discharge Requirements Permit, and the Permit to Operate, whichever is less.

3.4 SOLID WASTE DISPOSAL FACILITIES IN LOS ANGELES COUNTY

As previously indicated in Chapter 1, Subsection 1.4.2, of this document, the Los Angeles County Solid Waste Management Action Plan (Action Plan), reaffirmed the Los Angeles County Board of Supervisors' policy of managing solid waste through a reasonable balance of public and private facilities. This policy has provided the residences and businesses of Los Angeles County with a competitive solid waste disposal market while maintaining that adequate in-County landfill capacity is necessary to protect the health and safety of the residents of the County. To meet this goal, the Los Angeles County Department of Public Works and the County Sanitation Districts of Los Angeles County have worked together through the Action Plan to address 50 years of in- and out-of-County disposal capacity. The California Integrated Waste Management Act of 1989, as amended (AB 939), recognized the need for adequate disposal capacity for solid waste that cannot be diverted through source reduction, recycling, or composting and, therefore, required the counties in the State to address 15 years of disposal capacity.

In 1995, the CSE's base year, over 40,900 tons of solid waste were disposed in eleven major Class III landfills (excluding Sunshine Canyon landfill that was permitted in 1995 but not fully developed), six minor Class III landfills (including Two Harbors Landfill that closed in September 1995), two unclassified landfills (in addition to the inert waste-only portion of Azusa Land Reclamation Landfill), and two transformation facilities in Los Angeles County. This mix of publicly- and privately-operated facilities comprises a complex network which protects the public health and ensures the environmentally safe disposal of solid waste.

For the purpose of the CSE:

- **Major Class III Landfill** is defined as a permitted Class III landfill which is permitted to receive 250,000 tons or more of solid waste per year.
- **Minor Class III Landfill** is defined as a permitted Class III landfill which is permitted to receive less than 250,000 tons of solid waste per year.

Most of the solid waste in Los Angeles County is either hauled directly to permitted solid waste disposal facilities or indirectly via one of the several transfer stations located throughout the County.

3.4.1 Class III Landfills

In 1995, the CSE's base year, there were eleven major Class III landfills (excluding Sunshine Canyon landfill that was permitted in 1995 but not fully developed) and in operation. These landfills were:

- Antelope Valley
- Azusa Land Reclamation
- BKK
- Bradley
- Calabasas
- Chiquita Canyon
- Lancaster
- Lopez Canyon
- Puente Hills
- Scholl Canyon
- Spadra
- Sunshine Canyon (not operational in 1995 - permitted but not fully developed)

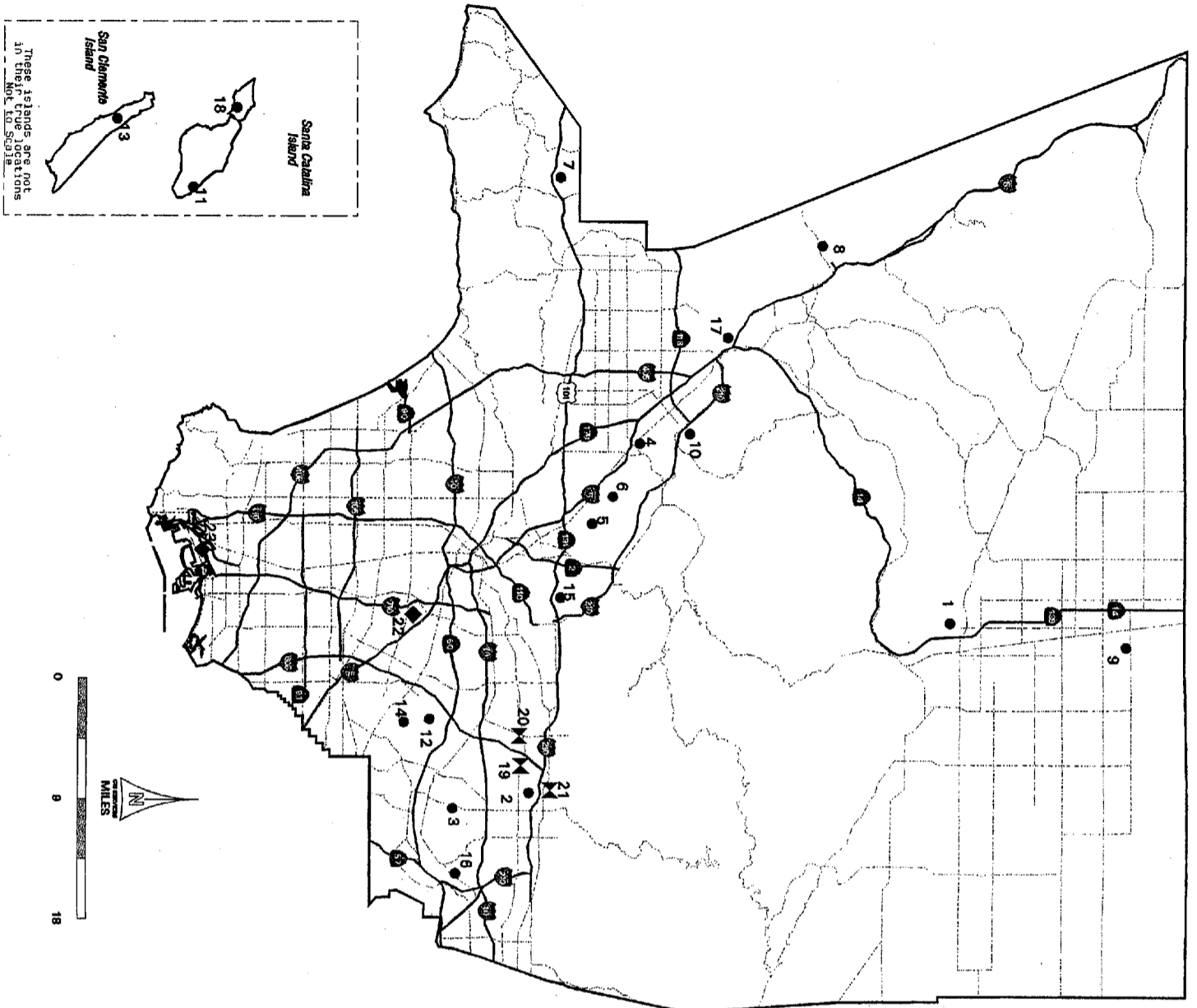
A detailed Fact Sheet and Map of each major Class III landfill facility is provided in Section 3.5, Tables 3-1 through 3-13 and Figures 3-1 through 3-13.

A portion of the total waste generated in Los Angeles County is disposed in six minor Class III landfills (including Two Harbors Landfill that closed in September 1995). These are:

- Brand Park (City of Glendale Public Works use only)
- Burbank (City of Burbank use only)
- Pebbly Beach, Santa Catalina Island
- San Clemente, U.S. Navy Facility, San Clemente Island
- Savage Canyon (City of Whittier waste only)
- Two Harbors, Santa Catalina Island (facility closed September 1995)

A detailed Fact Sheet and a Map of each minor Class III landfill facility is provided in Section 3.5, Tables 3-1, and 3-14 through 3-19, and Figures 3-1, and 3-14 through 3-19.

By January 1997, there were only nine major and five minor Class III landfills in operation. Two Harbors Landfills closed in September 30, 1995, Lopez Canyon Landfill ceased operations in July 1, 1996, BKK Landfill in West Covina closed on September 15, 1996, Azusa Land Reclamation Landfill ceased disposal of non-inert solid waste on October 5, 1996, and Sunshine Canyon Landfill began operations on August 5, 1996.



Class III Landfills

- 1 Antelope Valley Landfill
- 2 Azusa Land Reclamation (limited to inert waste as of 10/3/96)
- 3 BKK (closed 9/15/96)
- 4 Bradley
- 5 Brand Park
- 6 Burbank
- 7 Calabasas
- 8 Chiquita Canyon
- 9 Lancaster
- 10 Lopez Canyon (closed 7/1/96)
- 11 Pebbly Beach
- 12 Puente Hills
- 13 San Clemente
- 14 Savage Canyon
- 15 Scholl Canyon
- 16 Spadra
- 17 Sunshine Canyon (opened 8/5/96)
- 18 Two Harbors (closed 9/30/95)

Unclassified (Inert) Landfills *

- ▶▶ 19 Nu-Way Landfill (permitted on 6/3/96)
- ▶▶ 20 Peck Road Gravel Pit
- ▶▶ 21 Reliance Pit #2

Transformation Facilities

- ◆ 22 Commerce Refuse-To-Energy Facility (CREEF)
- ◆ 23 Southeast Resource Recovery Facility (SERRF)

LEGEND

- Existing Class III Landfill
- ◆ Existing Transformation Facilities
- ▶▶ Existing Unclassified (Inert) Landfills

* Note: As of 10/3/96, Azusa Land Reclamation Landfill has been operating as an unclassified landfill only.



Location of Existing Permitted Solid Waste Disposal Facilities in Los Angeles County

Figure 3-1

Table 4-3
 REMAINING PERMITTED COMBINED DISPOSAL CAPACITY OF EXISTING SOLID WASTE DISPOSAL FACILITIES IN LOS ANGELES COUNTY
 AS OF DECEMBER 31, 1995

Facility	Solid Waste Facility Permit Number	Location City or Uninc. Area	Operation days/week	1995 Average Daily Disposal Capacity (Tons)		Quantity of MSW Disposed in 1995 (Million Tons)		Estimated remaining permitted capacity (effective December 31, 1995) Million Tons	Comments				
				SWFP Daily Capacity	LUP Daily Capacity	In-County Source (See Note I)	Out-of-County Source (See Note II)			In-County Source (See Note I)	Out-of-County Source (See Note II)		
CLASS III LANDFILLS													
Antelope Valley	18-AA-0009	Palmdale	7	1,400 (b)	---	533	---	533	0.17	---	2.13	3.55	This proposed expansion in the unincorporated area is not fully permitted as of 1/19/97
Azusa Land Reclamation	18-AA-0013	Azusa	6	6,000 (c)	---	1,430	157	1,587	0.46	0.06	3.00	4.29	By Court order the landfill ceased disposal of MSW on 10/2/96. Facility currently accepts inert waste only. See footnote (c).
BKK	18-AE-0001	West Covina	6	12,000 (e)	---	8,881	1,206	9,786	2.68	0.38	2.65	4.42	Facility closed on 8/15/95 per a settlement dated 1/17/95 between BKK Corporation and the City of West Covina.
Bradley	18-AR-0008	Los Angeles	6	7,000	---	4,055	---	4,054	1.27	0.003	7.64	10.91	LUP expires 4/13/2007.
Brand Park	18-AA-0006	Glendale	5	102	---	28	---	28	0.009	---	0.59	0.59	Limited to City of Glendale Department of Public Works use only.
Burbank	18-AA-0040	Burbank	5	240	---	132	---	132	0.041	---	6.36	10.60	Limited to the City's use only and provided waste is collected by the City's crews.
Calabasas	18-AA-0056	Uninc.	6	3,500	---	1,833	326	2,159	0.57	0.10	15.06	30.12	Limited to the Calabasas Watershed only.
Chiquita Canyon	18-AA-0052	Uninc.	7	6,000	---	1,236	153	1,389	0.39	0.048	1.88	2.78	LUP expires 11/24/97.
Lancaster	18-AA-0050	Lancaster	8	1,000	---	328	284	688	0.10	0.093	0.47	0.59	Approximate closure date 4/98.
Lopez Canyon	18-AA-0020	Los Angeles	5	4,000	---	2,968	---	2,968	0.83	---	0.52	0.63	Facility closed 7/1/95 when LUP expired. Landfill operation was limited to City of Los Angeles use only and subject to the collection of waste by the City Bureau of Sanitation.
Pasady Beach	18-AA-0061	Uninc.	6	33	---	8	---	8	0.003	---	0.042	0.07	The facility annual average capacity is 49 tpd.
Puente Hills	18-AA-0053	Uninc.	6	13,200	13,200	10,150	7	10,157	3.17	0.002	28.33	62.40	LUP limits waste disposal to 32,000 tons per week. Does not accept waste from the City of Los Angeles and Orange County.
San Clemente	18-AA-0083	Uninc.	2	1.5	---	2	---	2	0.0006	---	0.048	0.38	Landfill owned and operated by the U.S. Navy.
School Canyon	18-AA-0012	Glendale	6	3,400	---	1,447	0.38	1,448	0.45	0.0001	10.91	22.73	Limited to the School Canyon Watershed only.
Spadra	18-AA-0016	Pomona	6	3,760	---	2,064	158	2,222	0.64	0.049	2.12	5.00	LUP limits the waste disposal rate to 15,000 tons per week. The facility does not accept waste from the City of Los Angeles and Orange County.
Sunshine Canyon	18-AA-0683	Uninc.	6	6,800	6,800	---	---	---	---	---	16.30	23.72	Facility closed 8/20/95.
Two Harbors	18-AA-0052	Uninc.	5	---	---	0.35	---	0.35	0.0001	---	---	---	Limited to the City of Whittier use only.
Whittier (Sawdust Canyon)	18-AH-0001	Whittier	6	350	---	232	---	232	0.0724	---	2.86	4.44	
TOTAL				67,527		35,048	2,281	37,229	10.93	0.71	102.31	187.92	
UNCLASSIFIED LANDFILLS (INERT SOLID WASTE ONLY)													
Azusa Land Reclamation	18-AA-0013	Azusa	6	6,500 (d)	---	---	---	---	---	---	26.50	17.67	Unclassified portion of the landfill only.
Nu-way Linc Oak Landfill	18-AA-0080	Inverdale	6	6,000	---	---	---	---	---	---	---	---	This facility became permitted on 6/30/96.
Peck Road Gravel Pit	18-AR-0089	Monrovia	6	1,210	---	358	2	360	0.11	0.0007	10.07	6.71	
Reliance Pit #2	18-AR-0084	Inverdale	6	6,000	---	1,342	68	1,410	0.42	0.021	16.56	11.04	
TOTAL				19,710		1,699	70	1,770	0.63	0.02	63.13	35.42	
TRANSFORMATION FACILITIES													
Commerce Refuse To-Energy Facility	18-AA-0506	Commerce	7	1,000	---	281	88	329	0.08	0.02	487 (f)	---	Assumed to remain operational during the 15-year planning period.
Southwest Resource Recovery Facility	18-AK-0083	Long Beach	7	2,240	---	1,374	133	1,506	0.43	0.04	1,510 (g)	---	Assumed to remain operational during the 15-year planning period.
TOTAL				3,240		1,655	200	1,855	0.51	0.063	1,977 (h)	---	

NOTES:
 1. Disposal quantities are based on actual tonnages reported by owners/operators of permitted solid waste disposal facilities to the DPW as a part of 1995 DQRD. The 1995 disposal tonnages listed above are based on tonnages figures for the period of January 1 through December 31, 1995.
 2. Estimated Remaining Permitted Capacity based on landfill owner/operator responses to a written survey conducted by the DPW in January 1995 as well as a review of site specific permit criteria established by local land use agencies, LEAs, CRYOCBS, and the SCQAMD.

FOOTNOTES:
 (a) Conversion factor based on in-place solid waste density if provided by landfill operators, otherwise a conversion factor of 1,200 lb/cy was used.
 (b) Antelope Valley Landfills daily capacity of 1,400 tons is based on the SWFP issued on 12/26/95.
 (c) By Court order, on 10/2/96, the CRYOCB-Los Angeles region ordered the Azusa Land Reclamation Landfill to immediately cease accepting MSW. The facility ceased accepting MSW on 10/2/96 but continues to accept inert waste.
 (d) Permitted daily capacity of 6,500 tpd consists of 6,000 tpd of refuse and 500 tpd of inert waste. Facility currently accepts inert waste only. (see footnote (c)).
 (e) Daily capacity established in 6/90 Notice and Order, as amended by the City of West Covina.
 (f) Based on SWFP limit of 2,800 tons per week, expressed as a daily average, six days/week.
 (g) Based on SWFP limit of 471,000 tons per week, expressed as a daily average, six days/week.
 (h) Expressed as a daily average, six days/week.

Abbreviations:
 CRYOCB California Regional Water Quality Control Board
 DQRD Disposal Quantity Reporting Data
 DPW Los Angeles County Department of Public Works
 LEA Local Enforcement Agency
 LUP Land Use Permit
 MSW Municipal Solid Waste
 SCQAMD South Coast Air Quality Management District
 SWFP Solid Waste Facility Permit
 tpd Tons per day, 5 days/week

3.4.2 Unclassified Landfills

In 1995, the CSE's base-year, there were two permitted unclassified landfills in Los Angeles County in addition to the unclassified-only portion of Azusa Land Reclamation Landfill. These facilities included:

- Azusa Land Reclamation (inert waste only portion)
- Peck Road Gravel Pit
- Reliance Pit #2

In addition, Nu-Way Live Oak Landfill became permitted in June 1996.

The remaining unclassified landfills in Los Angeles County either receive insignificant amounts of waste as to not require, are exempted from, or otherwise lack a Solid Waste Facility Permit issued by the Local Enforcement Agency and concurred by the California Integrated Solid Waste Management Board. Therefore, in accordance with the requirements of Section 18755.5(a) of Title 14 of the CCR, these unpermitted unclassified landfills are not included in the CSE.

Unclassified facilities are permitted to accept only non-water soluble, non-decomposable inert solid wastes such as dirt, concrete, asphalt, sand, and gravel for disposal. Liquid, decomposable, water soluble, or hazardous wastes are not accepted at these facilities. A detailed Fact Sheet and a Map of each permitted unclassified landfill is provided in Section 3.5, Tables 3-1, 3-20 through 3-23, and Figures 3-1, 3-20 through 3-23.

3.4.3 TRANSFORMATION FACILITIES

In 1995, there were two transformation (waste-to-energy) facilities in operation in Los Angeles County:

- Commerce Refuse-to-Energy Facility (CREF)
- Southeast Resource Recovery Facility (SERRF)

Opened in 1987, the Commerce Refuse-to-Energy Facility (CREF) is located in the City of Commerce and is owned by the Commerce Refuse-to-Energy Authority, a Joint Powers Authority formed between the City of Commerce and the County Sanitation District No. 2 of Los Angeles County. The facility is operated by the County Sanitation Districts.

The Southeast Resource Recovery Facility (SERRF) in the City of Long Beach began operation in 1988. The facility is owned by the SERRF Joint Powers Authority, which was formed by the City of Long Beach and the County Sanitation District No. 2 of Los Angeles County, and is currently operated by Montenay Pacific Power Corporation under contract with the City of Long Beach.

A detailed Fact Sheet and a Map of each transformation facility is provided in Section 3.5, Tables 3-1, 3-24, and 3-25, and Figures 3-1, 3-24, and 3-25.

3.5 FACT SHEETS AND MAPS

The following are Fact Sheets describing each permitted solid waste disposal facility in Los Angeles County and an accompanying map showing the location of each facility, the property boundaries, and the disposal footprint.

Data regarding Facility Information, Maximum Permitted Daily Capacity, Land Use/Conditional Use Permit, Waste Discharge Requirements Permit, Permitted Waste Types, Future Land Use, and Restrictions were obtained by a survey conducted of solid waste disposal facilities by the Los Angeles County Department of Public Works and from the disposal facility permit information on file at the Los Angeles County Department of Public Works. Data regarding Facility Remaining Permitted Disposal Capacity and Average Daily Waste Quantities were obtained from the December 1994-January 1995 survey and updated using 1995 Disposal Quantity Reporting.

Two important factors used throughout the CSE are the amount of existing permitted daily capacity and the remaining life of the solid waste disposal facilities' permitted capacity. To define how the amount of incoming waste affects each landfill's available airspace, the equivalent volume of the waste tonnages (or the equivalent tonnages of the waste volumes) for Class III facilities is approximated using the In-Place Density conversion factor of 1,200 pounds per cubic yard or the conversion factor provided by the individual facility owner/operator.

Section 18755.5 of the PRC requires the County to provide yearly as well as daily permitted capacities. Since most facilities only have a daily limit (and sometimes a weekly or monthly limit) the yearly equivalent is calculated by the number of days the facility operates per year as reported by each facility surveyed and in accordance with the requirements of the applicable permits. If a landfill has a weekly or monthly limit, both daily and yearly equivalents are calculated by the number of operating days per year. The approximated quantities are provided in brackets.

The Future Land Use for facilities which may close during the 15-year planning period are given in the facility Fact Sheet.

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**TABLE 3-1
SUMMARY OF PERMITTED SOLID WASTE DISPOSAL FACILITIES**

FACILITY	SWFP #	ADDRESS	TELEPHONE NUMBER	THOMAS GUIDE PAGE/GRID	1995 AVERAGE DAILY DISPOSAL RATE ¹
MAJOR CLASS III LANDFILLS					
Antelope Valley	19-AA-0009	1200 W. City Ranch Rd. Palmdale, CA 93551	(805) 947-7197	4285-G2	553 tpd
Azusa Land Reclamation	19-AA-0013	1201 W. Gladstone St. Azusa, CA 91702	(818) 334-0719	598-F1	1,587 tpd - closed 10/96
BKK	19-AF-0001	2210 S. Azusa Ave. West Covina, CA 91790	(818) 965-0911	638-J5	9,786 tpd - closed 9/96
Bradley	19-AR-0004 19-AR-0008	9227 Tujunga Ave. Los Angeles, CA 91352	(818) 767-6180	502-J7	4,064 tpd
Calabasas	19-AA-0056	5300 Lost Hills Rd. Agoura, CA 91301	(310) 699-7411	558-E6	2,159 tpd
Chiquita Canyon	19-AA-0052	29201 Henry Mayo Dr. Valencia, CA 91355	(805) 257-3655	4549-E1	1,389 tpd
Lancaster	19-AA-0050	600 E. Avenue "F" Lancaster, CA 93535	(805) 945-5944	3925-G6	593 tpd
Lopez Canyon	19-AA-0820	11950 Lopez Canyon Rd. Los Angeles, CA 91342	(213) 893-8210	482-G4	2,968 tpd - closed 7/96
Puente Hills	19-AA-0053	2800 Workman Mill Rd. Whittier, CA 90601	(310) 699-7411	677-B2	10,157 tpd
Scholl Canyon	19-AA-0012	3001 Scholl Cyn. Rd., Glendale 91206	(310) 699-7411	565-D4	1,448 tpd
Spadra	19-AA-0015	4125 W. Valley Bl. Pomona, CA 91789	(310) 699-7411	640-A4	2,222 tpd
Sunshine Canyon	19-AA-0853	14747 San Fernando Rd. Sylmar, CA 91342	(818) 362-1567	481-C2	0 tpd - opened 8/96

¹tpd - tons per day, 6 days per week

NOTE: In 1996, Lopez Canyon and BKK landfills closed, Sunshine Canyon Landfill opened, and Azusa Landfill's waste discharge requirements allowing the disposal of non-inert solid waste were rescinded. These changes have caused the regional waste disposal patterns to shift significantly thus the 1995 Average Daily Disposal Rate may not reflect the current (January 1997) disposal patterns.

**TABLE 3-1 (continued)
SUMMARY OF PERMITTED SOLID WASTE DISPOSAL FACILITIES**

FACILITY	SWFF #	ADDRESS	TELEPHONE NUMBER	THOMAS GUIDE PAGE/GRID	1995 AVERAGE DAILY DISPOSAL RATE ¹
MINOR CLASS III LANDFILLS					
Brand Park	19-AA-0006	1601 W. Mountain St. Glendale, CA 91207	(818) 548-3945	534-B7	28 tpd
Burbank	19-AA-0040	1600 Lockheed View Dr. Burbank, CA 91504	(818) 238-3888	533-H4	132 tpd
Pebble Beach	19-AA-0061	Pebble Beach Santa Catalina Island, CA 90704	(310) 946-6441	883-H4	8 tpd
San Clemente	19-AA-0063	Naval Auxiliary Landing Field San Clemente Island, CA 92135	(619) 545-3024	-	2 tpd
Savage Canyon	19-AH-0001	13919 E. Penn St. Whittier, CA 90602	(310) 945-8200	677-D6	232 tpd
Two Harbors	19-AA-0062	Two Harbors Santa Catalina Island, CA 90704	(310) 510-0303	-	1 tpd - closed 9/95
UNCLASSIFIED LANDFILLS²					
Azusa Land Reclamation	19-AA-0013	1201 W. Gladstone St. Azusa, CA 91702	(818) 334-0719	598-F1	0 tpd - ceased accepting non-inert solid waste 10/96
Peck Road	19-AA-0838	128 E. Live Oak Ave. Monrovia, CA 91016	(818) 574-1855	597-G2	360 tpd
Reliance Pit #2	19-AA-0854	Foothill Bl & Irwindale Ave. Irwindale, CA 91706	(213) 258-2777	568-F6	1,410 tpd
TRANSFORMATION FACILITIES					
Commerce Refuse-to-Energy Facility	19-AA-0506	5026 Sheila St. Commerce, CA 90040	(310) 699-7411	675-H4	329 tpd
Southeast Resource Recovery Facility	19-AK-0083	120 Henry Ford Ave. Long Beach, CA 90802	(310) 570-1196	824-H2	1,506 tpd

¹ tpd - tons per day, 6 days per week

² In addition to the unclassified landfills listed, the Nu-Way Live Oak Landfill became permitted in June 1996.

**ANTELOPE VALLEY PUBLIC LANDFILL
FACT SHEET**

1. FACILITY INFORMATION

Owner: Arklin Brothers Enterprises, Inc.	Operator: Palmdale Disposal Company
Address: 1200 W. City Ranch Rd., Palmdale 93551	Operating Days: Monday - Sunday
SWFP #: 19-AA-0009	SWFP Issue Date: 12/26/95
Last Review Date: 12/26/95	Review Due Date: 12/26/2000

2. FACILITY REMAINING PERMITTED CAPACITY (as of December 31, 1995)

Remaining Permitted Capacity:	2,128,000 tons	[3,546,000 cubic yards]
Estimated Remaining Life:	4.9 years (based on 1,400 tpd, 6 days per week)	
In-Place Density:	0.60 tons/cubic yard	

3. MAXIMUM PERMITTED DAILY CAPACITY

Daily:	1,400 tons	[2,333 cubic yards]
Yearly:	[436,800 tons]	[728,000 cubic yards]

4. 1995 AVERAGE DAILY WASTE QUANTITIES

553 tons	[922 cubic yards]
----------	-------------------

**5. LAND USE/CONDITIONAL USE PERMIT - Permit #: 85512-(5) Issued: 4/8/92
Amended by Permit # 93041-(5) on 12/1/93**

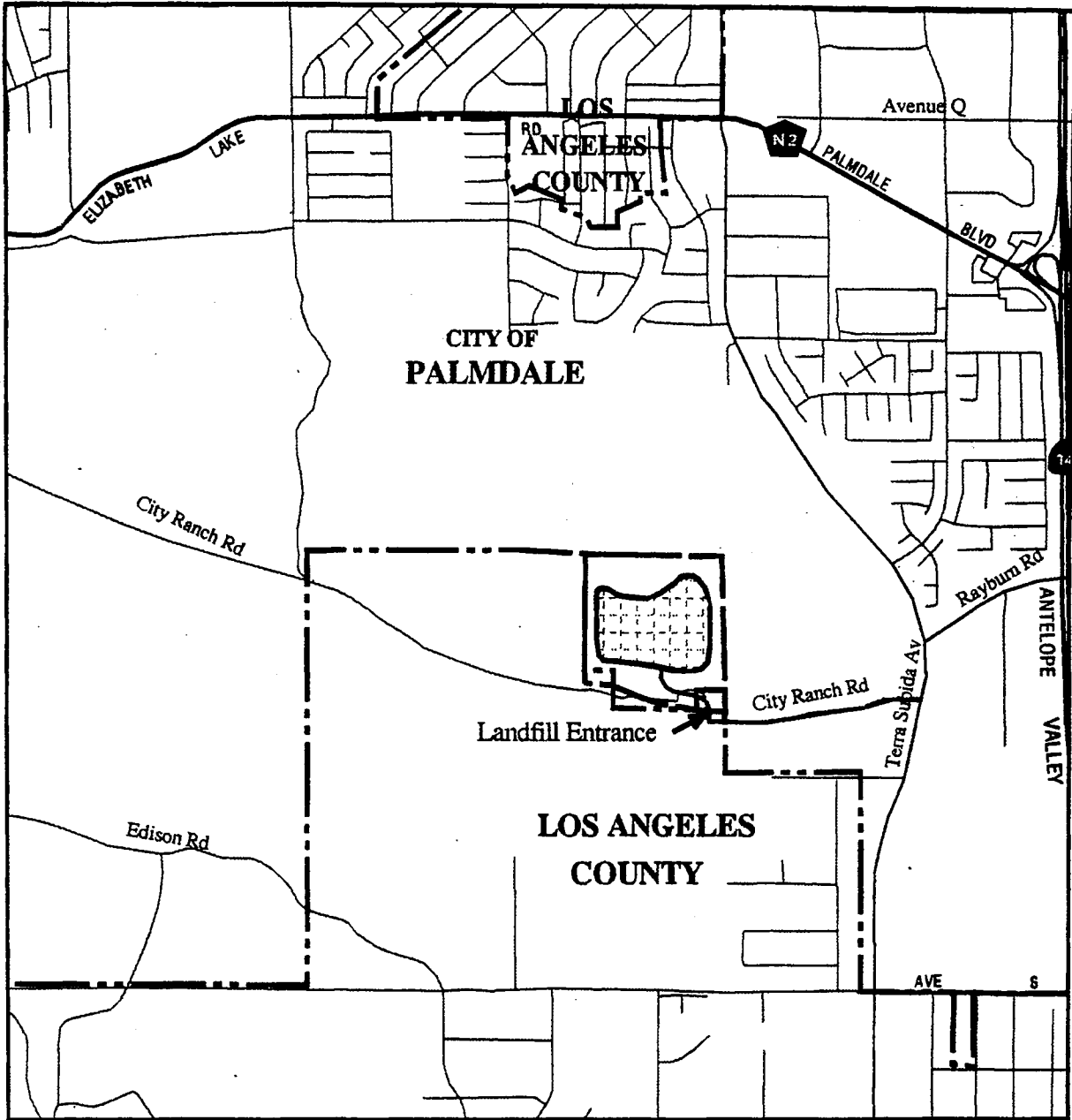
**6. WASTE DISCHARGE REQUIREMENTS - Order #: 6-84-52, issued 5/11/84
Amended by Order # 6-93-100 on 10/9/93 (Subtitle D)**

7. PERMITTED WASTE TYPES - solid waste

8. FUTURE LAND USE - open space

9. RESTRICTIONS - no limits on waste origin; 434 vehicles per day maximum per SWFP.

Note: Calculated or assumed quantities are shown in brackets.



LEGEND



Existing Disposal Area



Limits of Disposal Areas



Property Boundary



City Limits



SCALE 1" = 2000'

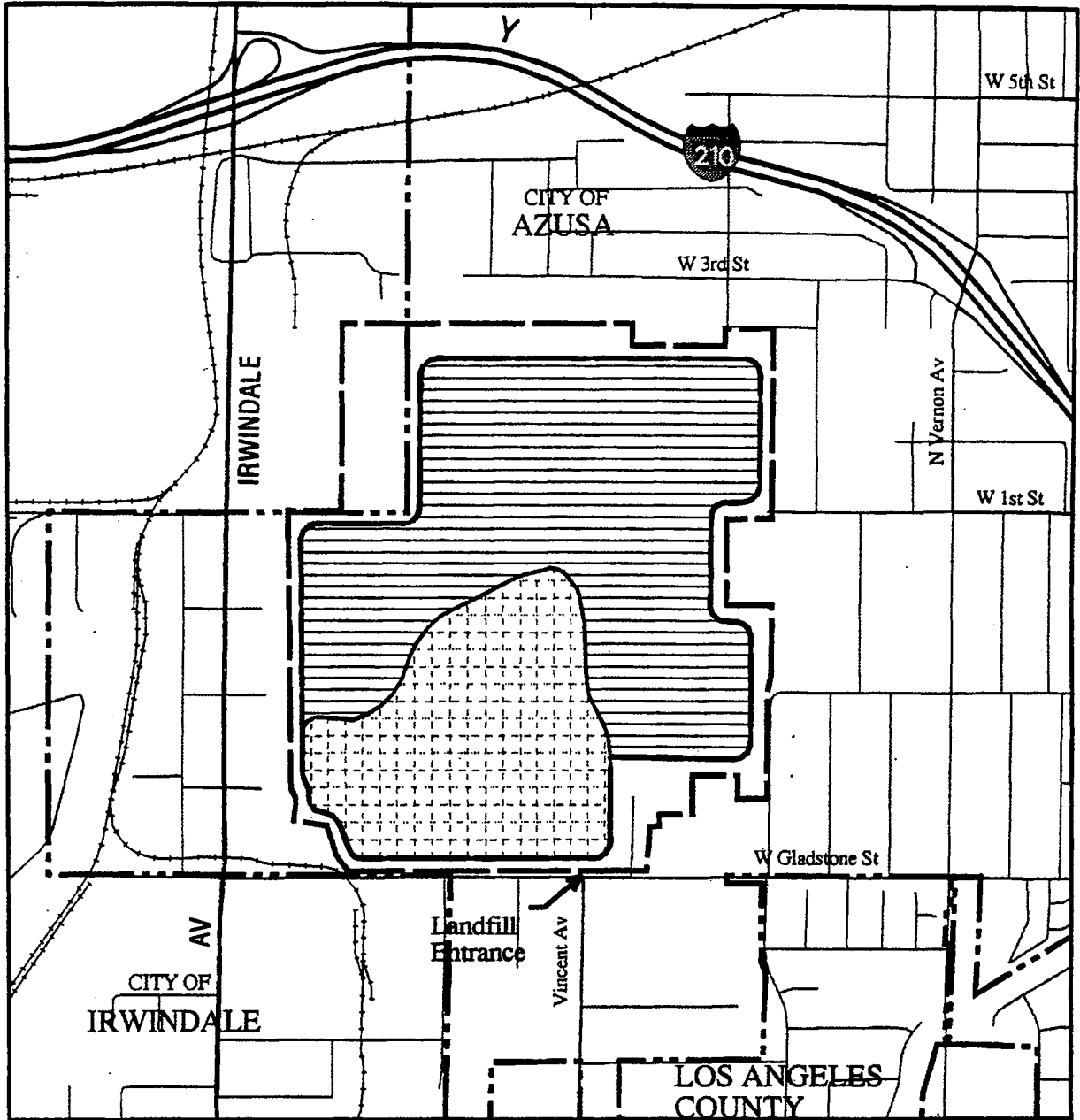
Data contained in this map is prepared by whole or part from the Thomas Bros. Maps. © Digital Associates. This map is copyrighted, and reproduced with permission granted by Thomas Bros. Maps. © All rights reserved.

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Figure 3-2
ANTELOPE VALLEY PUBLIC LANDFILL
 Los Angeles County Countywide Siting Element

Source: Los Angeles County Department of Public Works, January 1997



LEGEND

-  Existing Inert Disposal Area
-  Existing Class III Disposal Area




-  Limits of Disposal Areas
-  Property Boundary
-  City Limits



Figure 3-3
AZUSA LAND RECLAMATION LANDFILL
 Los Angeles County Countywide Siting Element

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Table 3-4

BKK SANITARY LANDFILL - facility closed 9/96

FACT SHEET

1. **FACILITY INFORMATION**

Owner: BKK Corporation

Operator: Owner

Address: 2210 S. Azusa Ave., West Covina 91790

Operating Days: Monday - Saturday

SWFP #: 19-AF-0001

SWFP Issue Date: 4/27/79

Last Review Date: None

Review Due Date: facility closed 9/96

2. **FACILITY REMAINING PERMITTED CAPACITY (as of December 31, 1995)**

Remaining Permitted Capacity: [2,652,000 tons]^{a & b} [4,420,000 cubic yards]

Estimated Remaining Life: facility closed 9/96^a

In-Place Density: [0.60 tons/cubic yard]

3. **MAXIMUM PERMITTED DAILY CAPACITY**

Daily: 12,000 tons^c [20,000 cubic yards]

Yearly Equivalent: [3,744,000 tons] [6,240,000 cubic yards]

4. **1995 AVERAGE DAILY WASTE QUANTITIES**

9,786 tons [16,311 cubic yards]

5. **LAND USE/CONDITIONAL USE PERMIT - Permit #: UUP #71**

Issued: 6/14/76

Expiration: 6/14/2006

6. **WASTE DISCHARGE REQUIREMENTS - Order #: 87-39**

Issued: 3/23/87

Amended by Order # 93-062 on 10/9/93 (Subtitle D)

7. **PERMITTED WASTE TYPES** - solid waste; sludge (1,700 tpd max.); asbestos (160 tpd max.); shredder waste (600 tpd max.)

8. **FUTURE LAND USE** - unknown

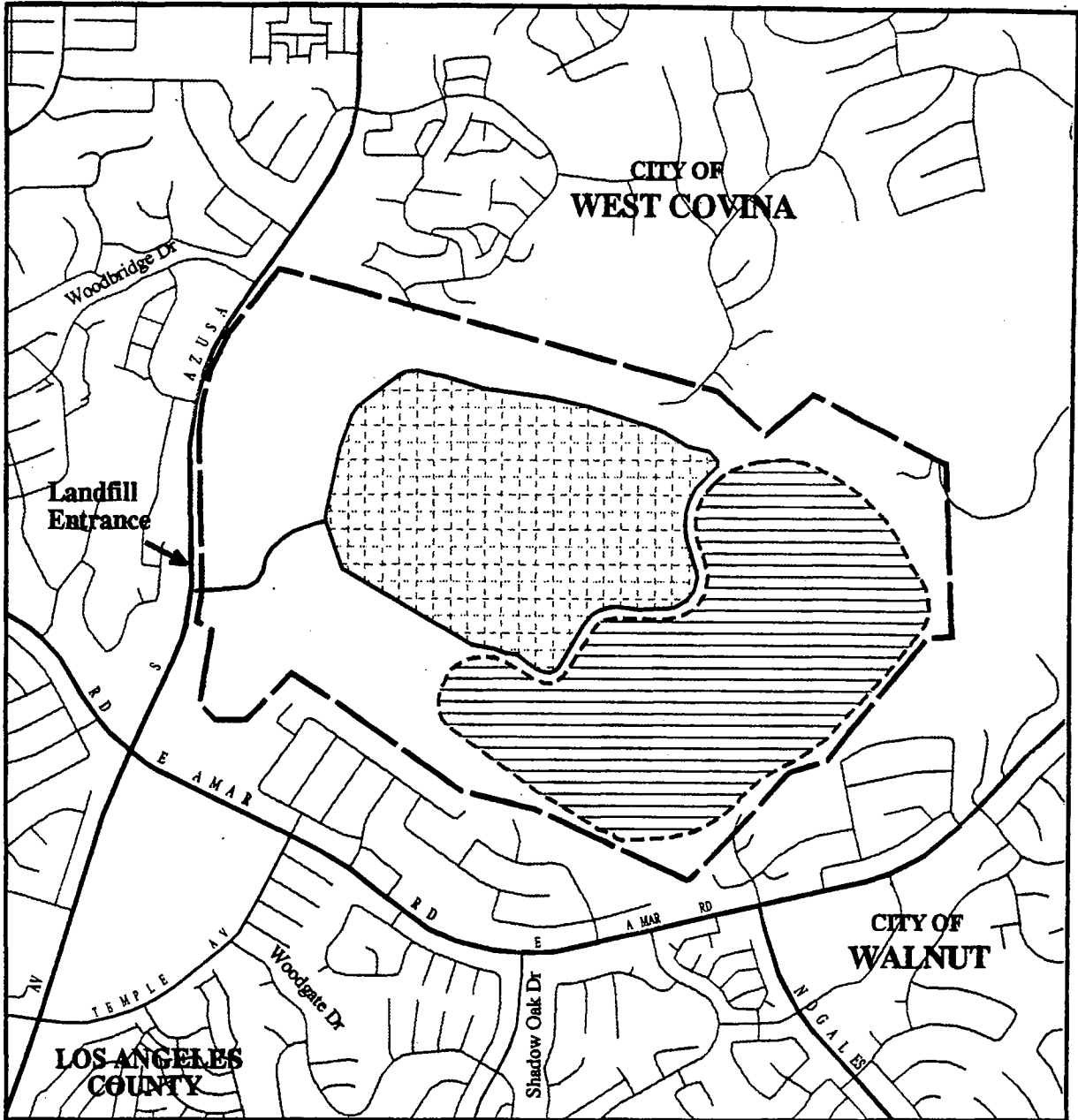
9. **RESTRICTIONS** - no limits on waste origin

^a Pursuant to an agreement between the City of West Covina and BKK, the Landfill closed on 9/15/96.







^b Remaining permit capacity was estimated based on 12,000 tons per day (6-day week) and the 9/15/96 closure date.

^c No limits referenced in SWFP. City of West Covina LEA's Notice and Order limits waste received to 12,000 tpd.

Note: Calculated or assumed quantities are shown in brackets.



LEGEND

-  Closed Disposal Area
-  Existing Disposal Area
-  Limits of Closed Areas
-  Limits of Disposal Areas
-  Property Boundary
-  City Limits



SCALE 1" = 1500'

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BKK SANITARY LANDFILL
Los Angeles County Countywide Siting Element

Figure 3-4

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Ed Jacques, dgs@plm.com

Table 3-5

**BRADLEY LANDFILL
FACT SHEET**

1. **FACILITY INFORMATION**

Owner: Waste Management Disposal Services of Calif, Inc. **Operator:** owner
(a subsidiary of Waste Management, Inc.)
Address: 9227 Tujunga Ave., Los Angeles 91352 **Operating Days:** Monday - Saturday
SWFP #: 19-AR-0008 **SWFP Issue Date:** 8/15/96
Last Review Date: 8/15/96 **Review Due Date:** 8/15/2001

2. **FACILITY REMAINING PERMITTED CAPACITY (as of December 31, 1995)**

Remaining Permitted Capacity: 7,637,000 tons 10,910,000 cubic yards
Estimated Remaining Life: 3.4 years (based on 7,000 tpd, 6 days per week)
In-Place Density: 0.70 tons/cubic yard

3. **MAXIMUM PERMITTED DAILY CAPACITY**

Daily: 10,000 tons [14,300 cubic yards]
Yearly Equivalent: [3,120,000 tons] [4,457,000 cubic yards]

4. **1995 AVERAGE DAILY WASTE QUANTITIES**

4,064 tons [5,806 cubic yards]

5. **LAND USE/CONDITIONAL USE PERMIT - Permit #: ZA 92-0002 (ZV)**

Issued: 3/18/96 **Expiration:** 3/18/2006
Amended by Permit# ZA 94-0792 (ZV), issued 3/18/96 (increase capacity from 7,000 tpd to 10,000 tpd)

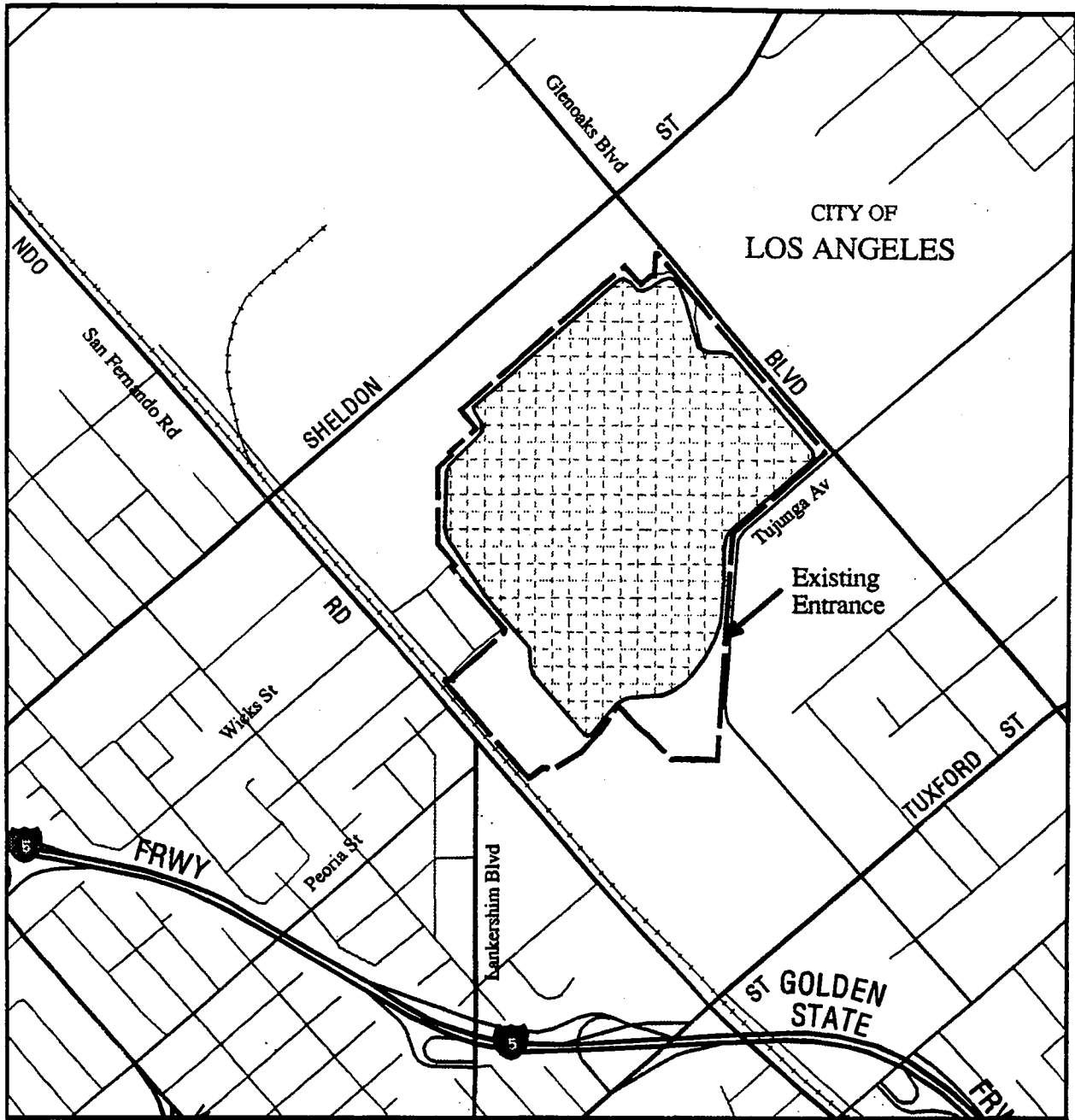
6. **WASTE DISCHARGE REQUIREMENTS - Order #: 94-059 Issued: 5/13/94**
Amended by Order # 93-062 on 10/9/93 (Subtitle D)

7. **PERMITTED WASTE TYPES - solid waste**

8. **FUTURE LAND USE - possible materials recovery, transfer, or rail-haul facilities**

9. **RESTRICTIONS - no limits on waste origin**

Note: Calculated or assumed quantities are shown in brackets.



LEGEND



Existing Disposal Area



Limits of Disposal Areas



Property Boundary



City Limits



GS SERVICES
SCALE 1" = 1400'



BRADLEY LANDFILL

Los Angeles County Countywide Siting Element

Figure 3-5

Table 3-6

**CALABASAS LANDFILL
FACT SHEET**

1. **FACILITY INFORMATION**

Owner: County of Los Angeles

Operator: County Sanitation District No. 2
of Los Angeles County

Address: 5300 Lost Hills Rd., Agoura 91301

Operating Days: Monday - Saturday

SWFP #: 19-AA-0056

SWFP Issue Date: 9/22/93

Last Review Date: 9/22/93

Review Due Date: review in progress

2. **FACILITY REMAINING PERMITTED CAPACITY (as of December 31, 1995)**

Remaining Permitted Capacity: 15,060,000 tons 30,120,000 cubic yards

Estimated Remaining Life: 22 years (based on 2,160 tpd, 6 days per week)

In-Place Density: 0.50 tons/cubic yard

3. **MAXIMUM PERMITTED DAILY CAPACITY**

Daily: 3,500 tons [7,000 cubic yards]

Yearly Equivalent: [1,085,000 tons] [2,170,000 cubic yards]

4. **1995 AVERAGE DAILY WASTE QUANTITIES**

2,159 tons [4,318 cubic yards]

5. **LAND USE/CONDITIONAL USE PERMIT - Permit #: 5022-(5)**

Issued: 8/9/72

Expiration: completion of project

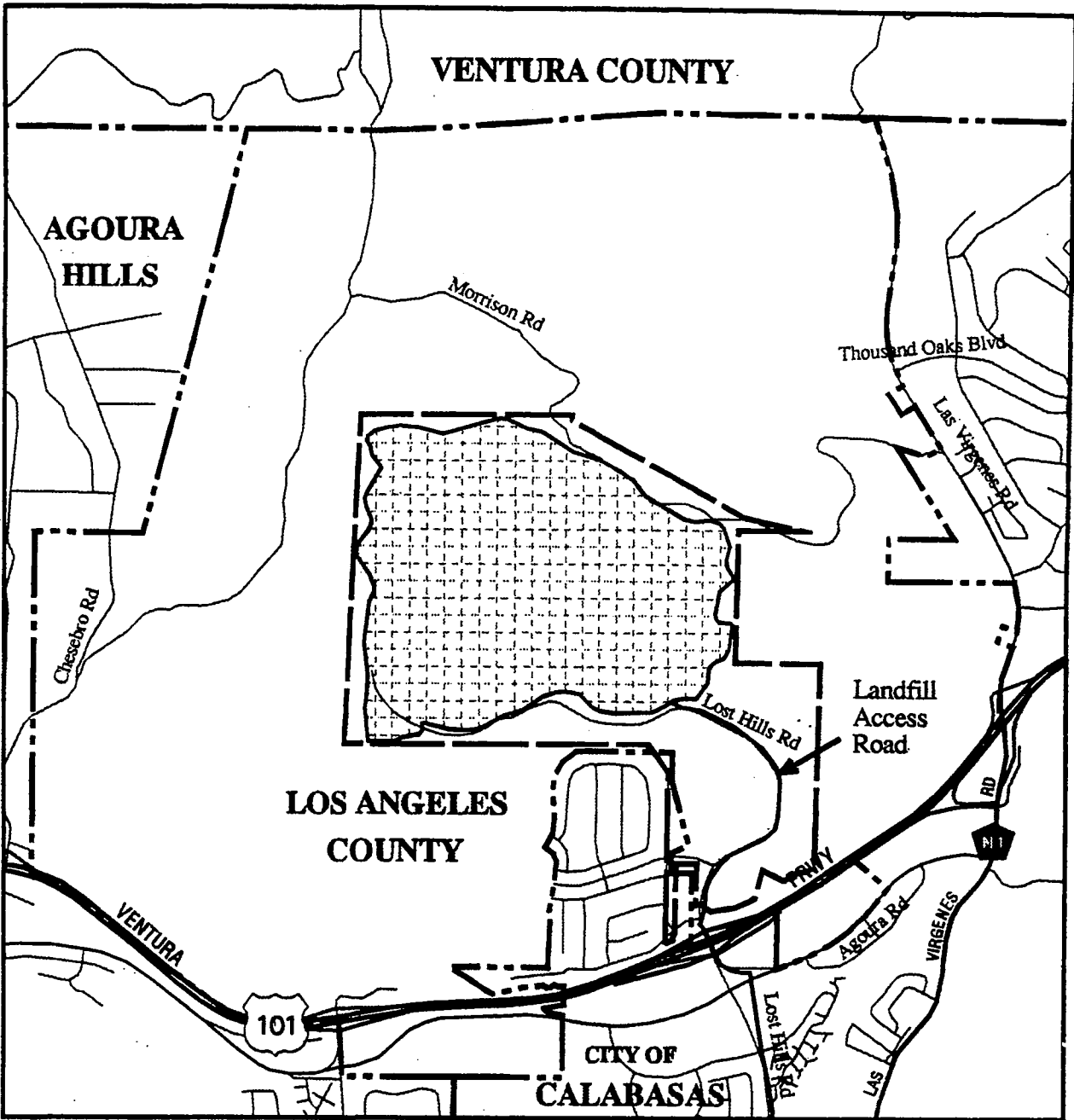
6. **WASTE DISCHARGE REQUIREMENTS - Order #: 89-053 Issued: 5/22/89**
Amended by Order # 93-062 on 10/9/93 (Subtitle D)

7. **PERMITTED WASTE TYPES - solid waste**

8. **FUTURE LAND USE - no areas to close prior to 2010**

9. **RESTRICTIONS** - origin of waste is limited to that generated in the Calabasas Wasteshed as defined by Los Angeles County Ordinance #91-0003.

Note: Calculated or assumed quantities are shown in brackets.



LEGEND



Existing Disposal Area



Limits of Disposal Areas



Property Boundary



City Limits



GIS SERVICES

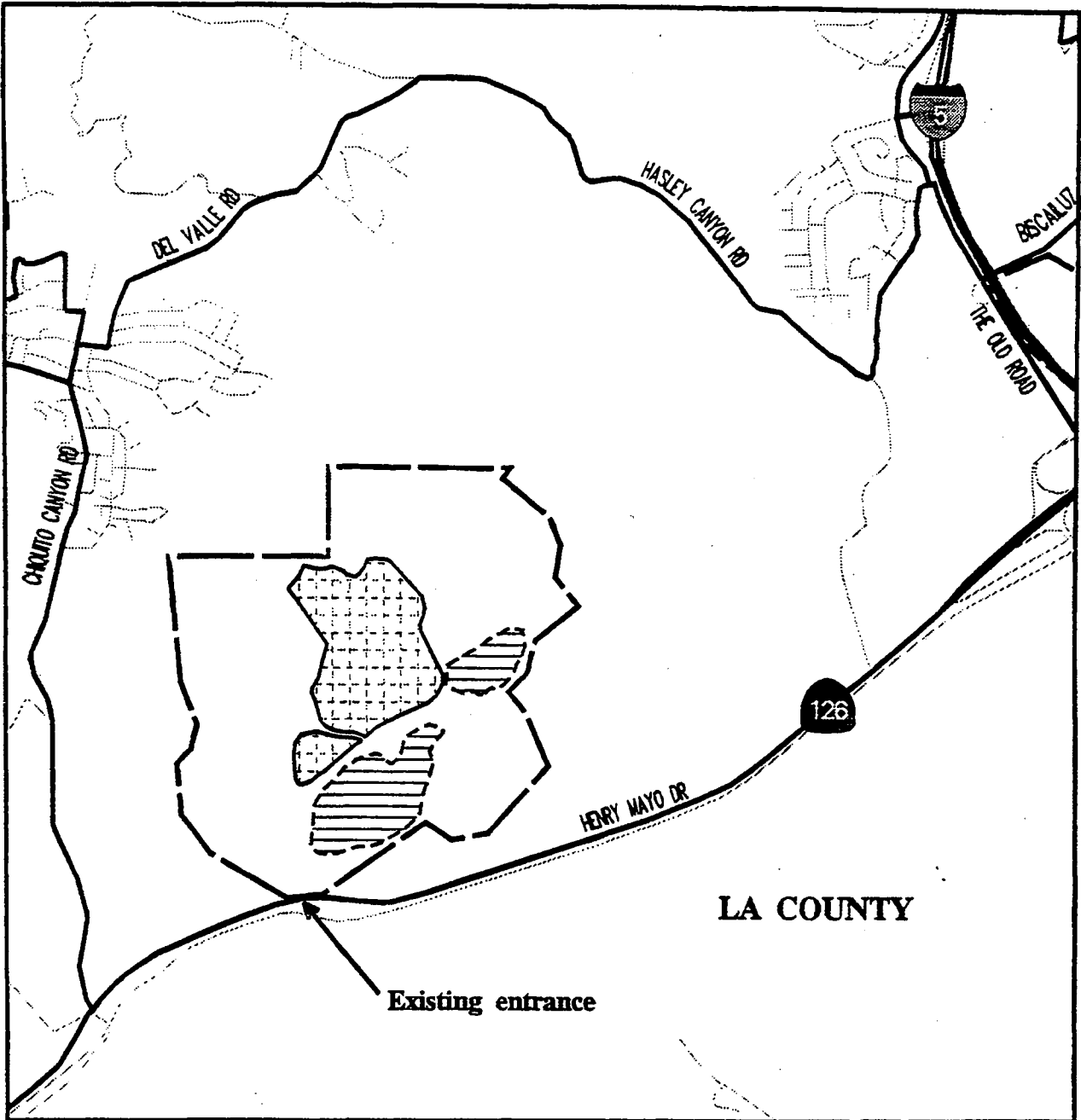
SCALE 1" = 2000'









CALABASAS LANDFILL

Los Angeles County Countywide Siting Element

Figure 3-6



LEGEND

- | | | | |
|---|------------------------|---|--------------------------|
|  | Closed Disposal Area |  | Limits of Closed Areas |
|  | Existing Disposal Area |  | Limits of Disposal Areas |
| | |  | Property Boundary |
| | |  | City Limits |



CHIQUITA CANYON LANDFILL
 Los Angeles County Countywide Siting Element

Figure 3-7

Source: Los Angeles County Department of Public Works, January 1996

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**LANCASTER LANDFILL
FACT SHEET**

1. FACILITY INFORMATION

Owner: Waste Management of Lancaster, Inc. (a subsidiary of Waste Management of North America, Inc.)	Operator: Owner
Address: 600 E. Avenue "F", Lancaster 93535	Operating Days: Monday - Saturday
SWFP #: 19-AA-0050	SWFP Issue Date: 9/12/91
Last Review Date: 9/12/91	Review Due Date: 9/12/96

2. FACILITY REMAINING PERMITTED CAPACITY (as of December 31, 1995)

Remaining Permitted Capacity:	472,600 tons	[695,000 cubic yards]
Estimated Remaining Life:	2.5 years (based on 600 tpd, 6 days per week)	
	1.5 years (based on 1,000 tpd, 6 days per week)	
In-Place Density:	0.68 tons/cubic yard	

3. MAXIMUM PERMITTED DAILY CAPACITY

Daily:	1,000 tons	[1,470 cubic yards]
Yearly Equivalent:	[312,000 tons]	[458,820 cubic yards]

4. 1995 AVERAGE DAILY WASTE QUANTITIES

593 tons	[872 cubic yards]
----------	-------------------

5. LAND USE/CONDITIONAL USE PERMIT - Permit #: 90494-(5)

Issued: 10/30/91	Expiration: 4/1/2002
-------------------------	-----------------------------

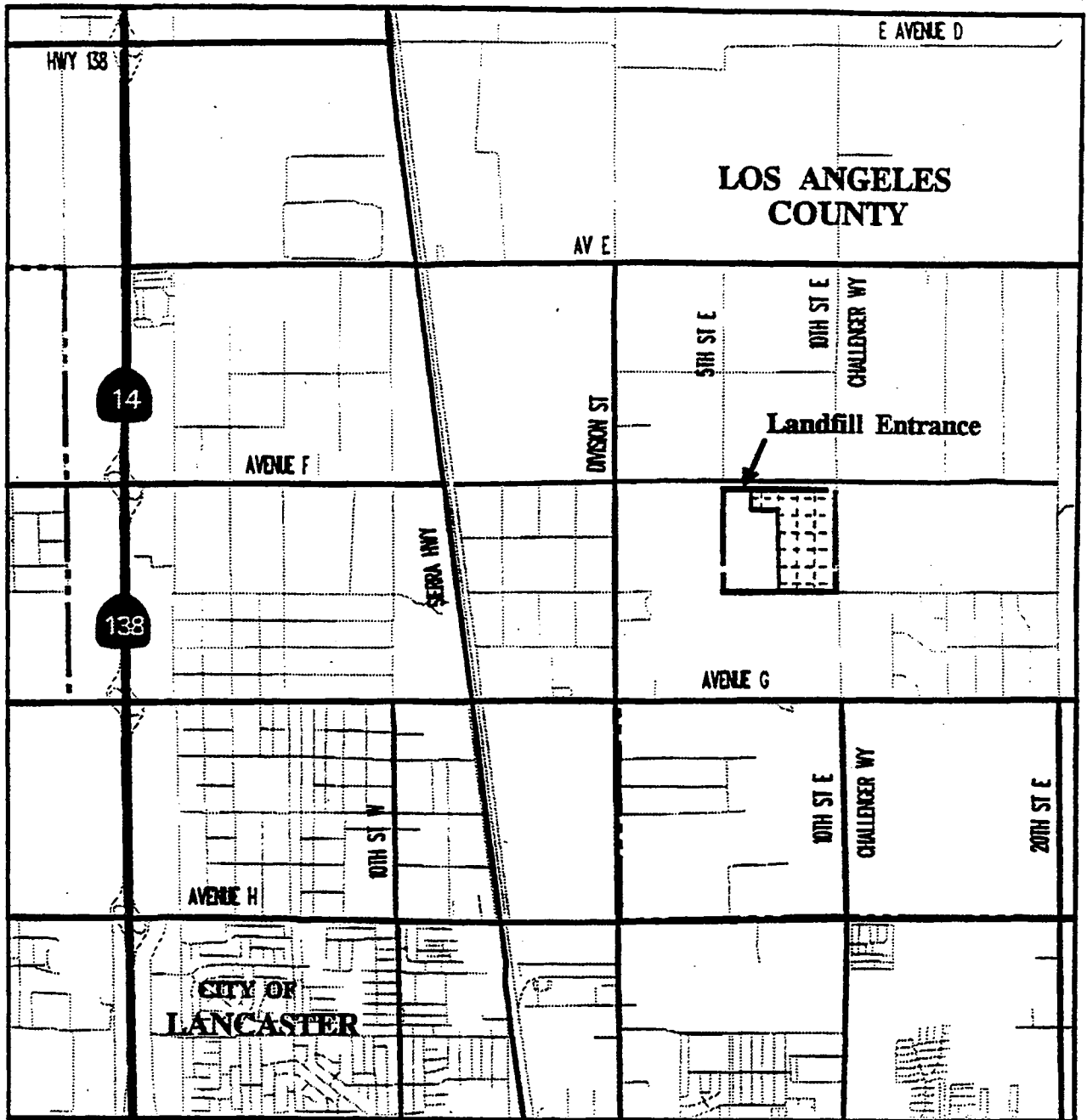
6. WASTE DISCHARGE REQUIREMENTS - Order #: 6-92-07A1 **Issued: 5/14/92**
Amended by Order # 93-062 on 10/9/93 (Subtitle D)

7. PERMITTED WASTE TYPES - solid waste and sludge





8. FUTURE LAND USE - open space

9. RESTRICTIONS - no limits on waste origin

Note: Calculated or assumed quantities are shown in brackets.




LEGEND

-  Existing Disposal Area
-  Limits of Disposal Areas
-  Property Boundary
-  City Limits



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LANCASTER LANDFILL

Los Angeles County Countywide Siting Element

Figure 3-8

Source: Los Angeles County Department of Public Works, January 1996

Table 3-9

LOPEZ CANYON LANDFILL - facility closed 7/96

FACT SHEET

1. FACILITY INFORMATION

Owner: City of Los Angeles

Operator: Owner

Address: 11950 Lopez Cyn. Rd., Los Angeles 91342

Operating Days: Monday - Friday

SWFP #: 19-AA-0820

SWFP Issue Date: 7/21/93

Last Review Date: 1/24/96

Expiration Date: 7/1/96

2. FACILITY REMAINING PERMITTED CAPACITY (as of December 31, 1995)

Remaining Permitted Capacity: 520,000 tons [832,000 cubic yards]

Estimated Remaining Life: 6 months (based on expiration of CUP on 7/1/96)

In-Place Density: 0.625 tons/cubic yard

3. MAXIMUM PERMITTED DAILY CAPACITY

Daily: 4,000 tons [6,400 cubic yards]

Yearly Equivalent: [1,040,000 tons] [1,664,000 cubic yards]

4. 1995 AVERAGE DAILY WASTE QUANTITIES

2,968 tons (6 days/week) [4,748 cubic yards (6 days/week)]

3,561 tons (5 days/week) [5,698 cubic yards (5 days/week)]

5. LAND USE/CONDITIONAL USE PERMIT

Permit #: CU90-0271 **Issued:** 1/20/91 (revised 2/27/92) **Expiration:** 2/4/96

Permit #: CU95-0166CU **Issued:** 9/27/95 (effective 2/4/96) **Expiration:** 7/1/96

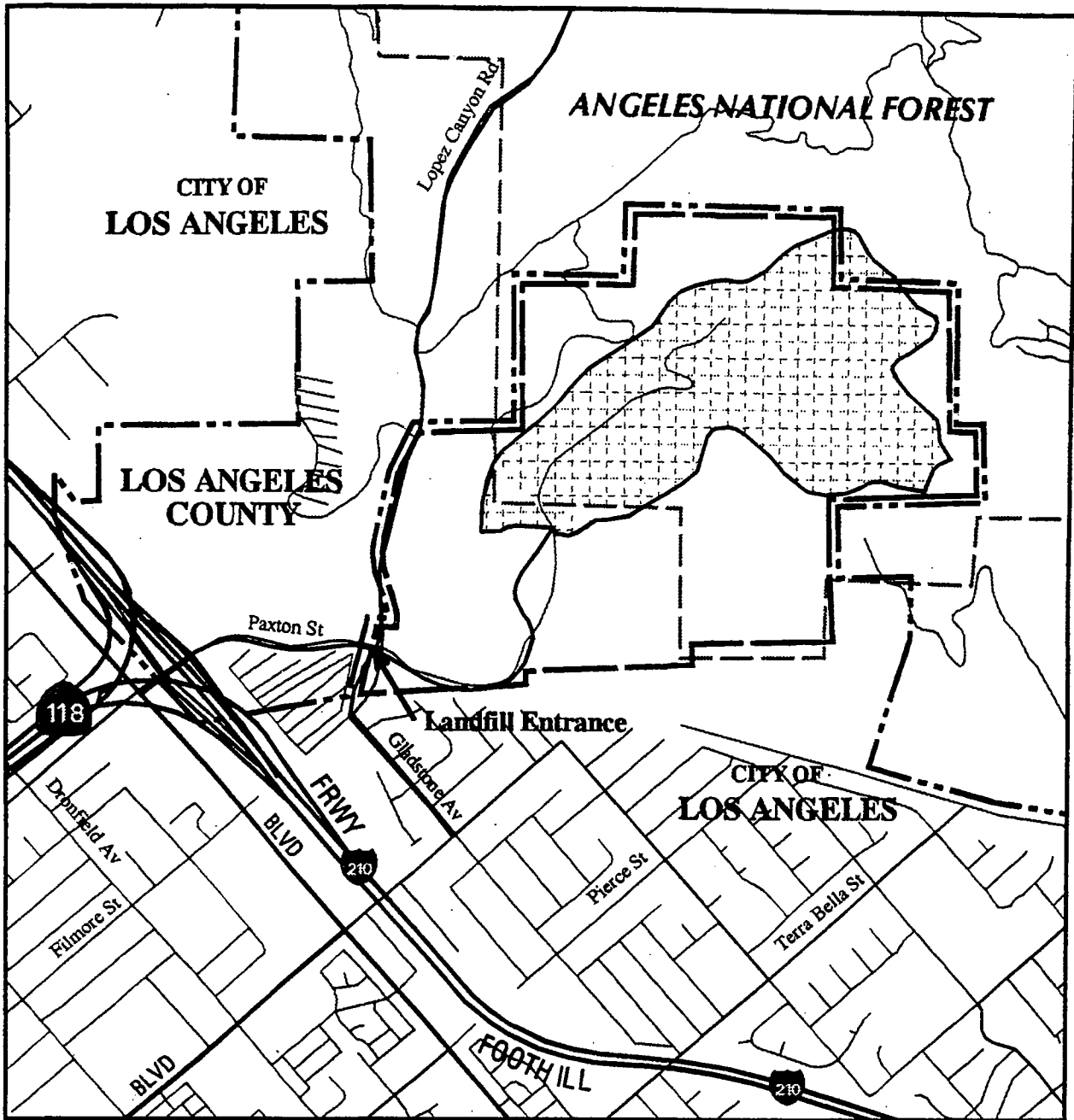
6. WASTE DISCHARGE REQUIREMENTS - **Order #: 91-122 **Issued:** 11/1/92
Amended by Order # 93-062 on 10/9/93 (Subtitle D)**

7. PERMITTED WASTE TYPES - municipal solid waste

8. FUTURE LAND USE - open space

9. RESTRICTIONS - origin of waste limited to single-family residential generators serviced by the City of Los Angeles Bureau of Sanitation; 400 refuse vehicles per day maximum per SWFP

Note: Calculated or assumed quantities are shown in brackets.



LEGEND

 Existing Disposal Area

 Limits of Disposal Areas

 Property Boundary

 City Limits



SCALE 1" = 1500'

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LOPEZ CANYON LANDFILL
Los Angeles County Countywide Siting Element

Figure 3-9

Table 3-10

**PUENTE HILLS LANDFILL
FACT SHEET**

1. FACILITY INFORMATION

Owner: County Sanitation Districts of Los Angeles County **Operator:** Owner
Address: 2800 Workman Mill Rd., Whittier 90601 **Operating Days:** Monday - Saturday
SWFP #: 19-AA-0053 **SWFP Issue Date:** 1/4/95
Last Review Date: 1/4/95 **Review Due Date:** 1/4/2000

2. FACILITY REMAINING PERMITTED CAPACITY (as of December 31, 1995)

Remaining Permitted Capacity: 29,328,000 tons 62,400,000 cubic yards
Estimated Remaining Life: 8 years (based on 12,000 tpd, 6 days per week)
In-Place Density: 0.47 tons/cubic yard

3. MAXIMUM PERMITTED DAILY CAPACITY

Daily: 13,200 tons [28,100 cubic yards]
Weekly: 72,000 tons [153,200 cubic yards]
Yearly Equivalent: [3,744,000 tons] [7,966,000 cubic yards]

4. 1995 AVERAGE DAILY WASTE QUANTITIES

10,157 tons [21,611 cubic yards]

5. LAND USE/CONDITIONAL USE PERMIT - Permit #: 92-250-(4)

Issued: 8/30/94 **Expiration:** 11/1/2003

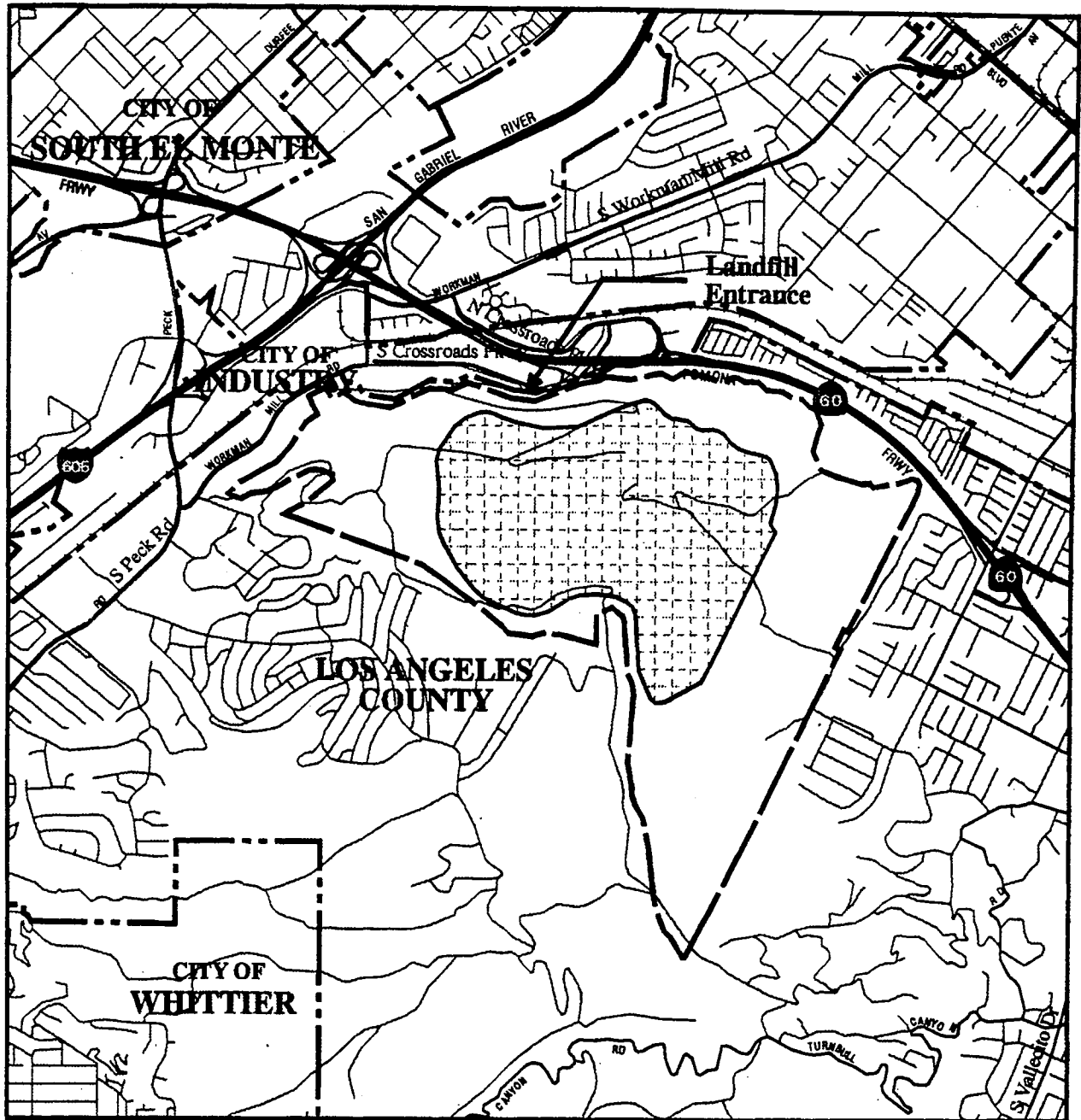
**6. WASTE DISCHARGE REQUIREMENTS - Order #: 93-070, issued 11/11/93
Amended by Order # 93-062 on 10/9/93 (Subtitle D)
Amended by Order # 94-103 on 9/26/94**

7. PERMITTED WASTE TYPES - solid waste





8. FUTURE LAND USE - park and recreation use

9. RESTRICTIONS - origin of waste limited to all jurisdictions except Orange County and the portion of the City of Los Angeles outside the jurisdictional boundary of the County Sanitation Districts

Note: Calculated or assumed quantities are shown in brackets.



LEGEND

-  Existing Disposal Area
-  Limits of Disposal Areas
-  Property Boundary
-  City Limits



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PUENTE HILLS LANDFILL
Los Angeles County Countywide Siting Element

Figure 3-10

Ref:\workspace\mt_dump\85\jml_dipjwnts_c06\NR 97 1339 29 FRIDAY

Table 3-11

**SCHOLL CANYON LANDFILL
FACT SHEET**

1. **FACILITY INFORMATION**

Owner: City of Glendale & Los Angeles County **Operator:** County Sanitation Districts
of Los Angeles County
Address: 3001 Scholl Cyn. Rd., Glendale 91206 **Operating Days:** Monday - Saturday
SWFP #: 19-AA-0012 **SWFP Issue Date:** 9/20/89
Last Review Date: 9/20/94 **Review Due Date:** review in progress

2. **FACILITY REMAINING PERMITTED CAPACITY (as of December 31, 1995)**

Remaining Permitted Capacity: 10,910,000 tons 22,730,000 cubic yards
Estimated Remaining Life: 22 years (based on 1,600 tpd, 6 days per week)
In-Place Density: 0.48 tons/cubic yard

3. **MAXIMUM PERMITTED DAILY CAPACITY**

Daily: 3,400 tons [7,100 cubic yards]
Yearly Equivalent: [1,054,000 tons] [2,195,800 cubic yards]

4. **1995 AVERAGE DAILY WASTE QUANTITIES**

1,448 tons [3,015 cubic yards]

5. **LAND USE/CONDITIONAL USE PERMIT - Permit #: 6668-U**

Issued: 11/27/78 **Expiration:** completion of project

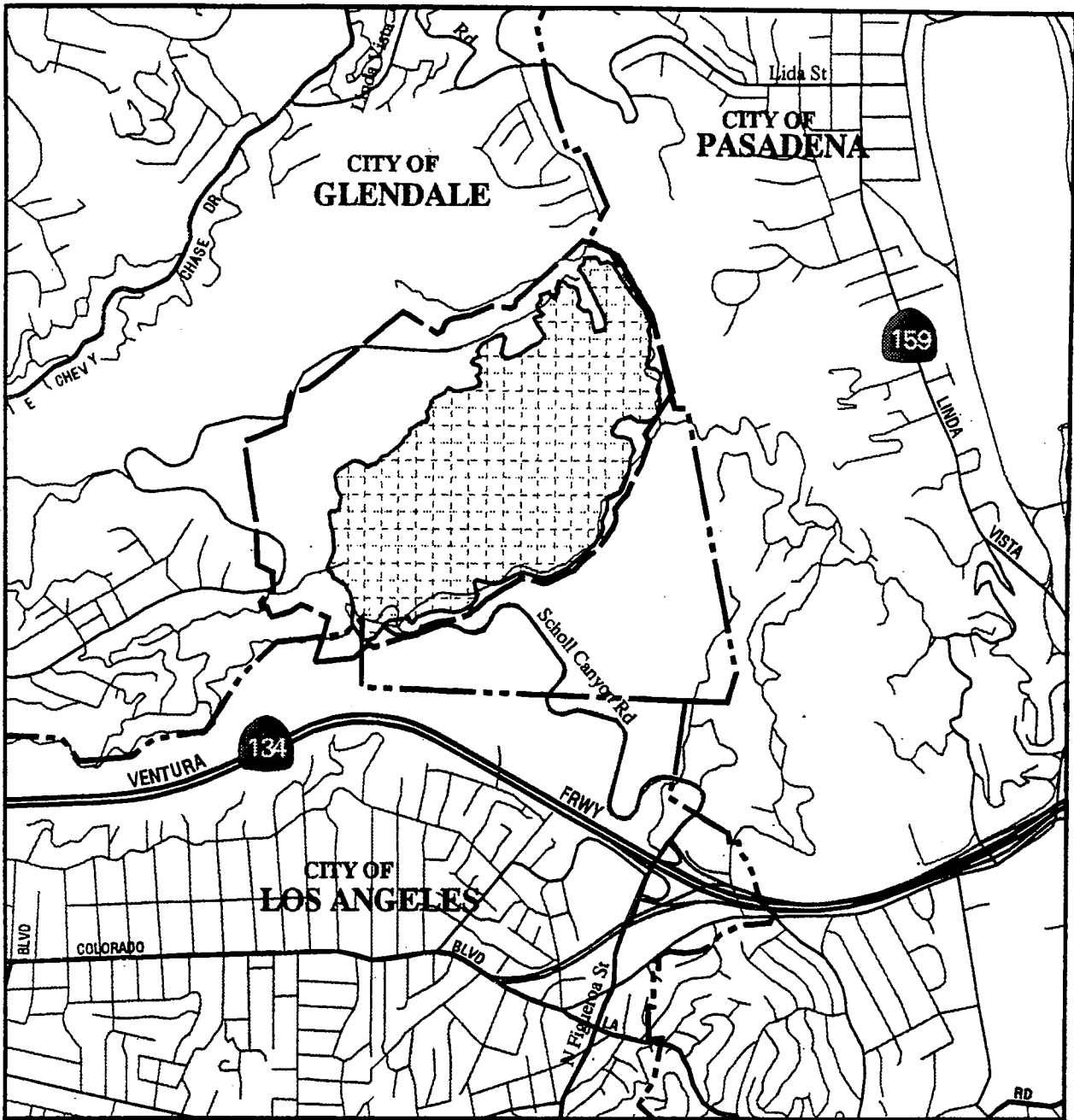
6. **WASTE DISCHARGE REQUIREMENTS - Order #: 88-112** **Issued:** 10/24/88
Amended by Order # 93-062 on 10/9/93 (Subtitle D)

7. **PERMITTED WASTE TYPES** - solid waste





8. **FUTURE LAND USE** - no areas to close prior to 2010

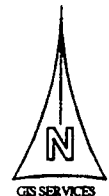
9. **RESTRICTIONS** - origin of waste is limited to that generated in the Scholl Canyon Wasteshed as defined by City of Glendale Ordinance #4780.

Note: Calculated or assumed quantities are shown in brackets.



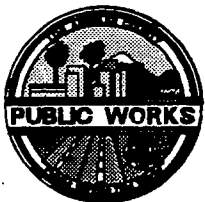
LEGEND

-  Existing Disposal Area
-  Limits of Disposal Areas
-  Property Boundary
-  City Limits



SCALE 1" = 2200'

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SCHOLL CANYON LANDFILL
Los Angeles County Countywide Siting Element

Figure 3-11

Source: Los Angeles County Department of Public Works, January 1997

Ref:\arcspac\ek_dump\p03\am_dir\scholl_cx4.dwg 97 10:57:17 MONDAY

Table 3-12
SPADRA LANDFILL
FACT SHEET

1. **FACILITY INFORMATION**

Owner: California State Polytechnic Univ., Pomona
& Los Angeles County

Operator: County Sanitation Districts of
Los Angeles County

Address: 4125 W. Valley Bl., Pomona 91789

Operating Days: Monday - Saturday

SWFP #: 19-AA-0015

SWFP Issue Date: 3/11/91

Last Review Date: 3/11/91

Review Due Date: 3/11/96

2. **FACILITY REMAINING PERMITTED CAPACITY (as of December 31, 1995)**

Remaining Permitted Capacity: 2,117,000 tons 5,004,000 cubic yards

Estimated Remaining Life: 2.7 years (based on 2,500 tpd, 6 days per week)

In-Place Density: 0.423 tons/cubic yard

3. **MAXIMUM PERMITTED DAILY CAPACITY**

Daily: 3,700 tons [8,750 cubic yards]

Weekly: 15,000 tons [35,460 cubic yards]

Yearly Equivalent: [780,000 tons] [1,844,000 cubic yards]

4. **1995 AVERAGE DAILY WASTE QUANTITIES**

2,222 tons [5,253 cubic yards]

5. **LAND USE/CONDITIONAL USE PERMIT - Permit #: 85-008-(1)**

Issued: 5/1/85

Expiration: 5/1/2010

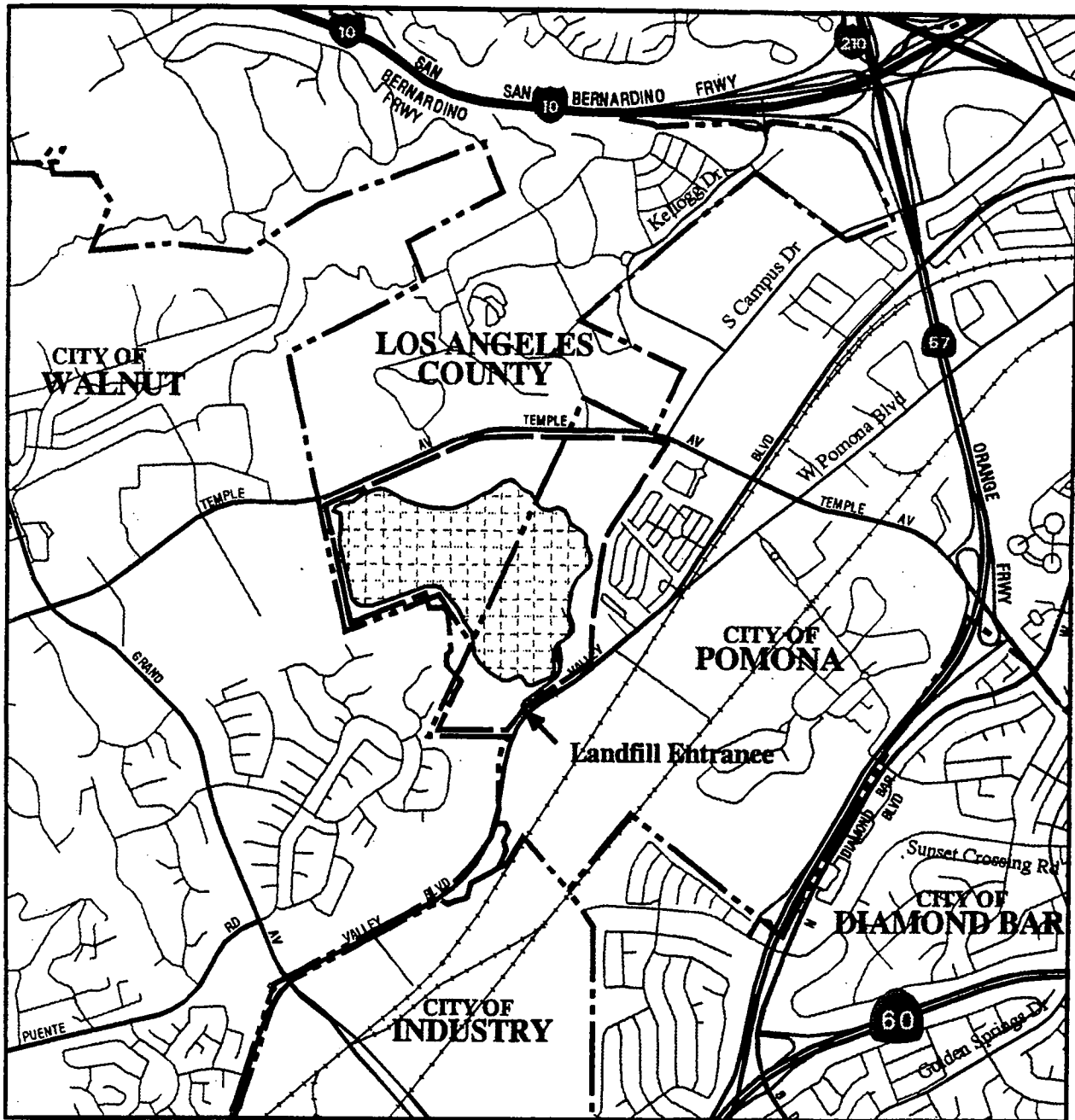
6. **WASTE DISCHARGE REQUIREMENTS - Order #: 89-006 Issued: 1/23/89**
Amended by Order # 93-062 on 10/9/93 (Subtitle D)

7. **PERMITTED WASTE TYPES - solid waste**

8. **FUTURE LAND USE - area to be dedicated to education and research by California State Polytechnic University, Pomona**

9. **RESTRICTIONS - origin of waste limited to all jurisdictions except Orange County and the portion of the City of Los Angeles outside the jurisdictional boundary of the County Sanitation Districts**

Note: Calculated or assumed quantities are shown in brackets.



LEGEND



Existing Disposal Area



Limits of Disposal Areas



Property Boundary



City Limits



GIS SERVICES

SCALE 1" = 2500'



Figure 3-12

SPADRA LANDFILL

Los Angeles County Countywide Siting Element

**SUNSHINE CANYON LANDFILL - not operating in 1995; opened 8/5/96
(COUNTY UNINCORPORATED AREA)**

FACT SHEET

1. **FACILITY INFORMATION**

Owner: Browning-Ferris Industries of California, Inc.	Operator: Owner
Address: 14747 San Fernando Rd., Sylmar 91342	Operating Days: Monday - Saturday
SWFP #: 19-AA-0853	SWFP Issue Date: 11/17/94
Last Review Date: 11/17/94	Review Due Date: 11/17/99

2. **FACILITY REMAINING PERMITTED CAPACITY** - not operating in 1995; opened 8/96

Remaining Permitted Capacity:	16,900,000 tons	[23,719,000 cubic yards]
Estimated Remaining Life:	14 years (based on 6,000 tpd, 6 days per week)	
In-Place Density:	0.7125 tons/cubic yard	

3. **MAXIMUM PERMITTED DAILY CAPACITY** - not operating in 1995; opened 8/96

Daily:	6,600 tons	[9,260 cubic yards]
Weekly:	36,000 tons	[50,530 cubic yards]
Yearly Equivalent:	[2,059,200 tons]	[2,890,100 cubic yards]

4. **1995 AVERAGE DAILY WASTE QUANTITIES** - not operating in 1995; opened 8/96

5. **LAND USE/CONDITIONAL USE PERMIT** - Permit #: 86-312-5

Issued: 10/21/93	Expiration: completion of project
-------------------------	--

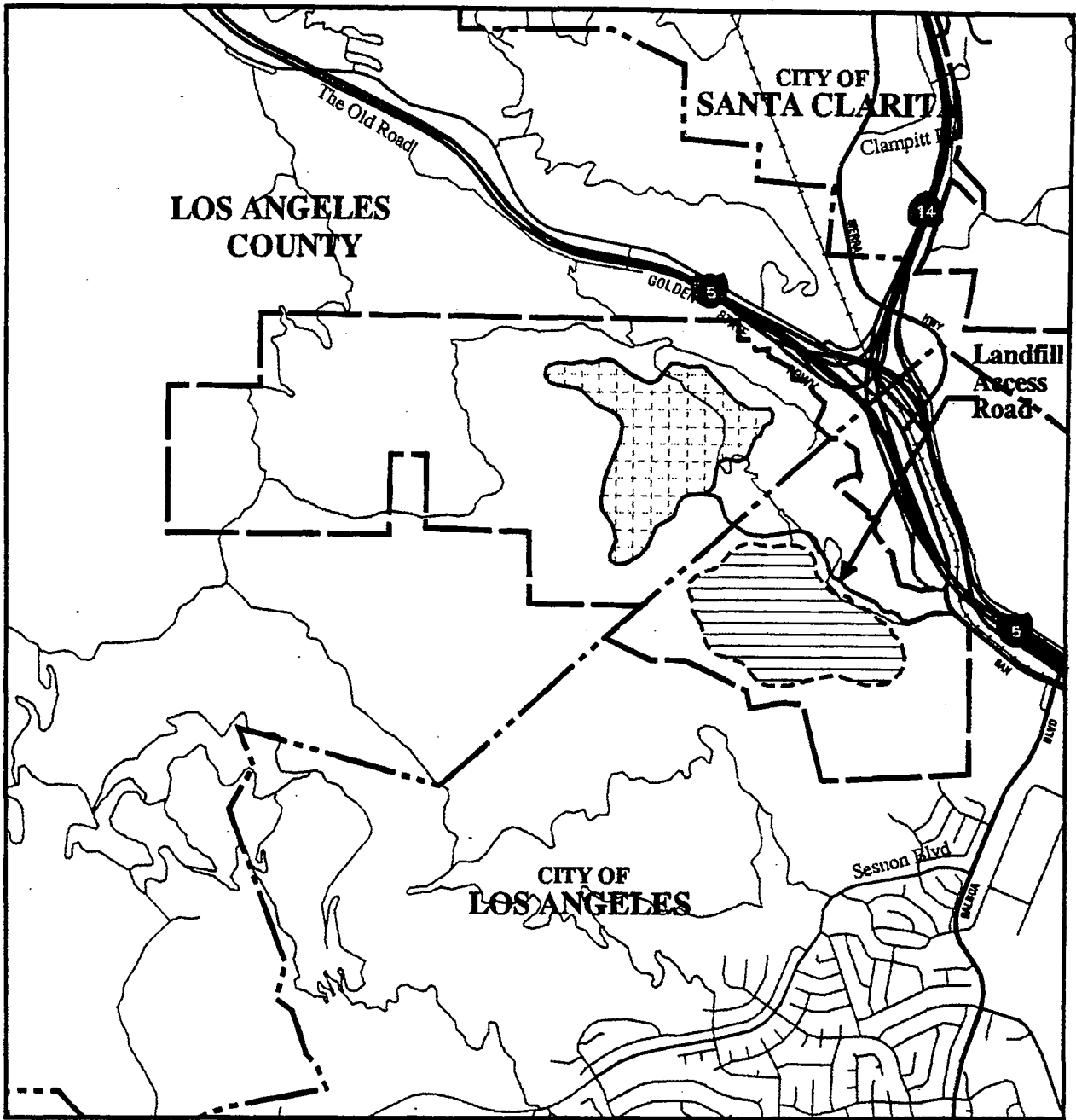
6. **WASTE DISCHARGE REQUIREMENTS** - Order #: 91-091 Issued: 7/22/91
Amended by Order # 93-062 on 10/9/93 (Subtitle D)

7. **PERMITTED WASTE TYPES** - solid waste







8. **FUTURE LAND USE** - open space

9. **RESTRICTIONS** - no limits on waste origin

Note: Calculated or assumed quantities are shown in brackets.



LEGEND

- | | | | |
|---|-------------------------------|---|---------------------------------|
|  | Closed Disposal Area |  | Limits of Closed Areas |
|  | Existing Disposal Area |  | Limits of Disposal Areas |
| | |  | Property Boundary |
| | |  | City Limits |



GIS SERVICES
SCALE 1" = 3000'

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SUNSHINE CANYON LANDFILL
Los Angeles County Countywide Siting Element

Figure 3-13

Table 3-14

**BRAND PARK LANDFILL
FACT SHEET**

1. **FACILITY INFORMATION**

Owner: City of Glendale

Operator: Owner

Address: 1601 W. Mountain St., Glendale 91207

Operating Days: Monday - Friday

SWFP #: 19-AA-0006

SWFP Issue Date: 8/28/87

Last Review Date: 8/28/92

Review Due Date: review in progress

2. **FACILITY REMAINING PERMITTED CAPACITY (as of December 31, 1995)**

Remaining Permitted Capacity: [591,000 tons] 986,000 cubic yards

Estimated Remaining Life: [21 years (based on 150 cubic yards/day, 5 days per week)]

In-Place Density: [0.60 tons/cubic yard]

3. **MAXIMUM PERMITTED DAILY CAPACITY** - none specified, however, SWFP indicates that at the time the SWFP was issued, the Landfill was disposing of 150 cubic yards per day, and 2,200 tons per month. Based on this information, the following is provided:

Daily: [90 tons] 150 cubic yards

Monthly: 2,200 tons [3,667 cubic yards]

Yearly Equivalent: [26,400 tons] [44,000 cubic yards]

4. **1995 AVERAGE DAILY WASTE QUANTITIES**

[28 tons, 6 days per week]

[47 cubic yards, 6 days per week]

5. **LAND USE/CONDITIONAL USE PERMIT** - not applicable: City facility for City use only

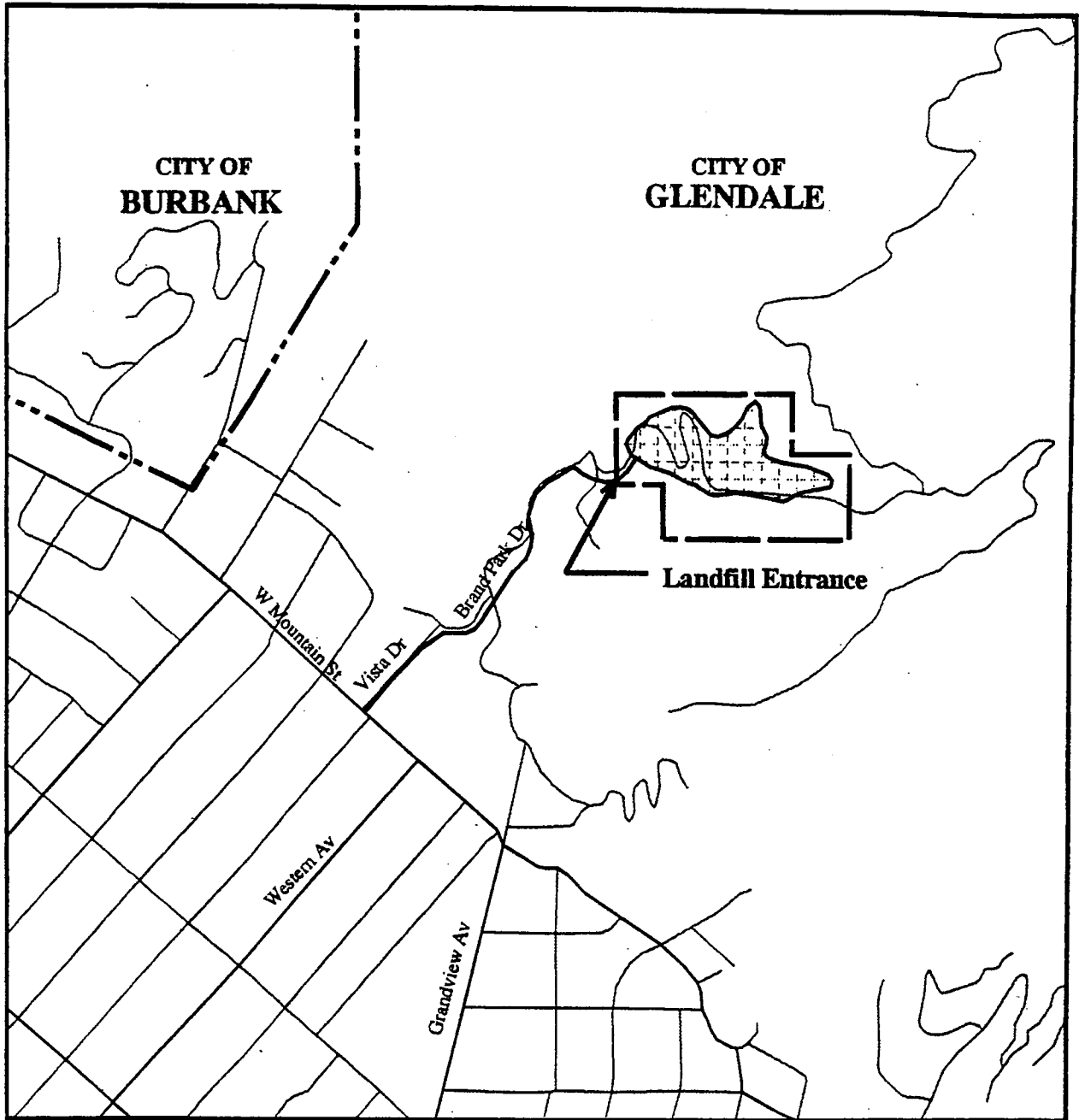
6. **WASTE DISCHARGE REQUIREMENTS** - Order #: 76-104 Issued: 6/28/76
Amended by Order # 93-062 on 10/9/93 (Subtitle D)

7. **PERMITTED WASTE TYPES** - solid waste

8. **FUTURE LAND USE** - no areas to close prior to 2010

9. **RESTRICTIONS** - limited to use by the City of Glendale

Note: Calculated or assumed quantities are shown in brackets.



LEGEND



Existing Disposal Area



Limits of Disposal Areas



Property Boundary



City Limits



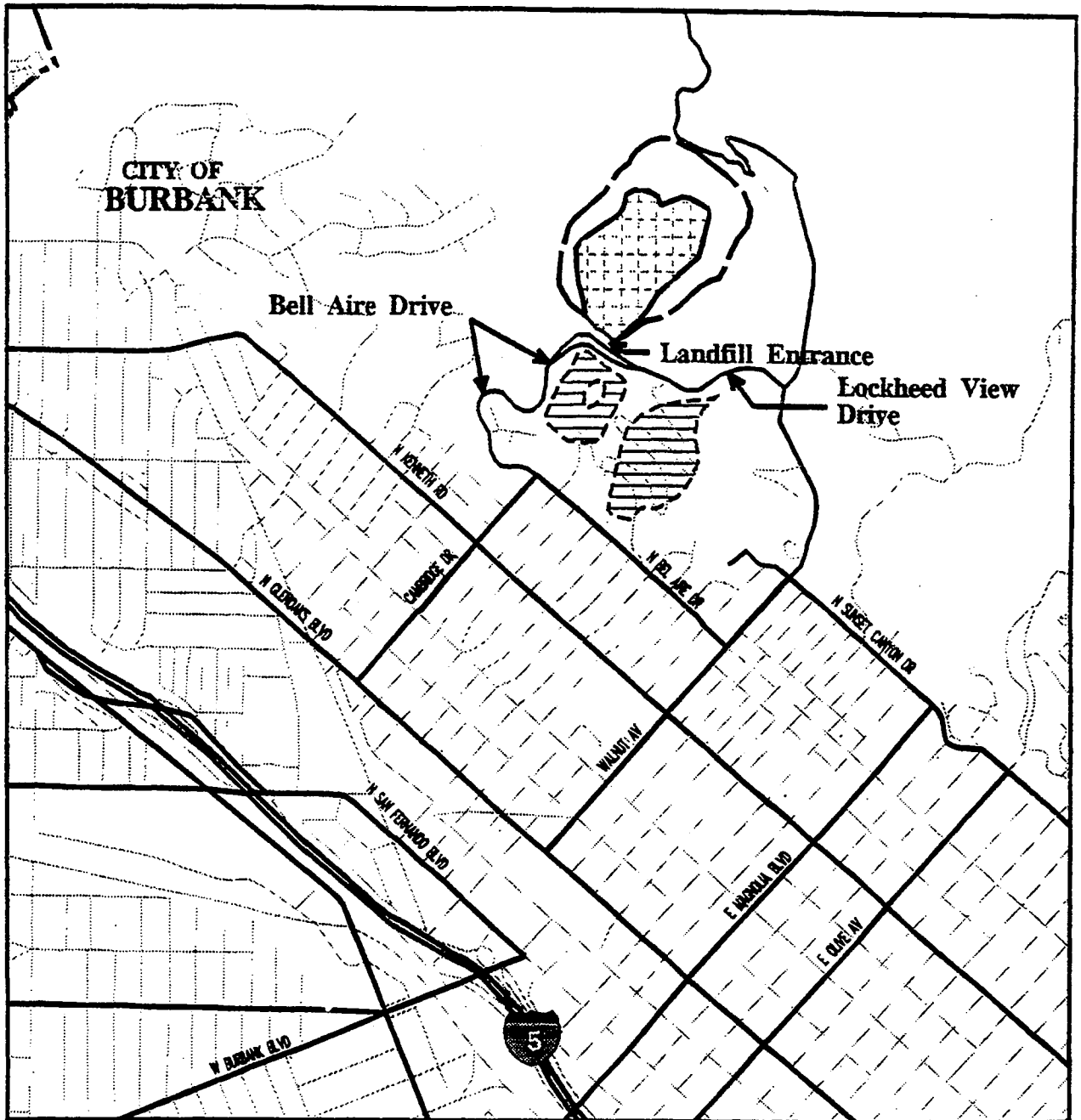
SCALE 1" = 1000'

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BRAND PARK LANDFILL
Los Angeles County Countywide Siting Element

Figure 3-14



LEGEND

- | | | | |
|---|------------------------|---|--------------------------|
|  | Closed Disposal Area |  | Limits of Closed Areas |
|  | Existing Disposal Area |  | Limits of Disposal Areas |
| | |  | Property Boundary |
| | |  | City Limits |



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BURBANK LANDFILL

Los Angeles County Countywide Siting Element

Figure 3-15

Source: Los Angeles County Department of Public Works, January 1996

**PEBBLY BEACH LANDFILL
FACT SHEET**

1. FACILITY INFORMATION

Owner: Santa Catalina Island Co.	Operator: Seagull Sanitation Systems
Address: Pebbly Beach, Santa Catalina Island 90704	Operating Days: Monday - Saturday
SWFP #: 19-AA-0061	SWFP Issue Date: 7/21/93
Last Review Date: 2/19/93	Review Due Date: review in progress

2. FACILITY REMAINING PERMITTED CAPACITY (as of December 31, 1995)

Remaining Permitted Capacity:	26,752 tons	[44,542 cubic yards]
Estimated Remaining Life:	11 years (based on 8 tons per day, 6 days per week) 2.9 years (based on expiration of CUP on 11/29/99)	
In-Place Density:	0.625 tons/cubic yard (ash)	

3. MAXIMUM PERMITTED DAILY CAPACITY

Daily:	49 tons	[78 cubic yards]
Yearly Equivalent:	[10,100 tons]	[16,200 cubic yards]

4. 1995 AVERAGE DAILY WASTE QUANTITIES

8 tons	[13 cubic yards]
--------	------------------

5. LAND USE/CONDITIONAL USE PERMIT - Permit #: 2469-(4)

Issued: 11/29/84	Expiration: 11/29/99
-------------------------	-----------------------------

6. WASTE DISCHARGE REQUIREMENTS - Order #: 72-70 **Issued: 12/13/72**
Amended by Order # 93-062 on 10/9/93 (Subtitle D)

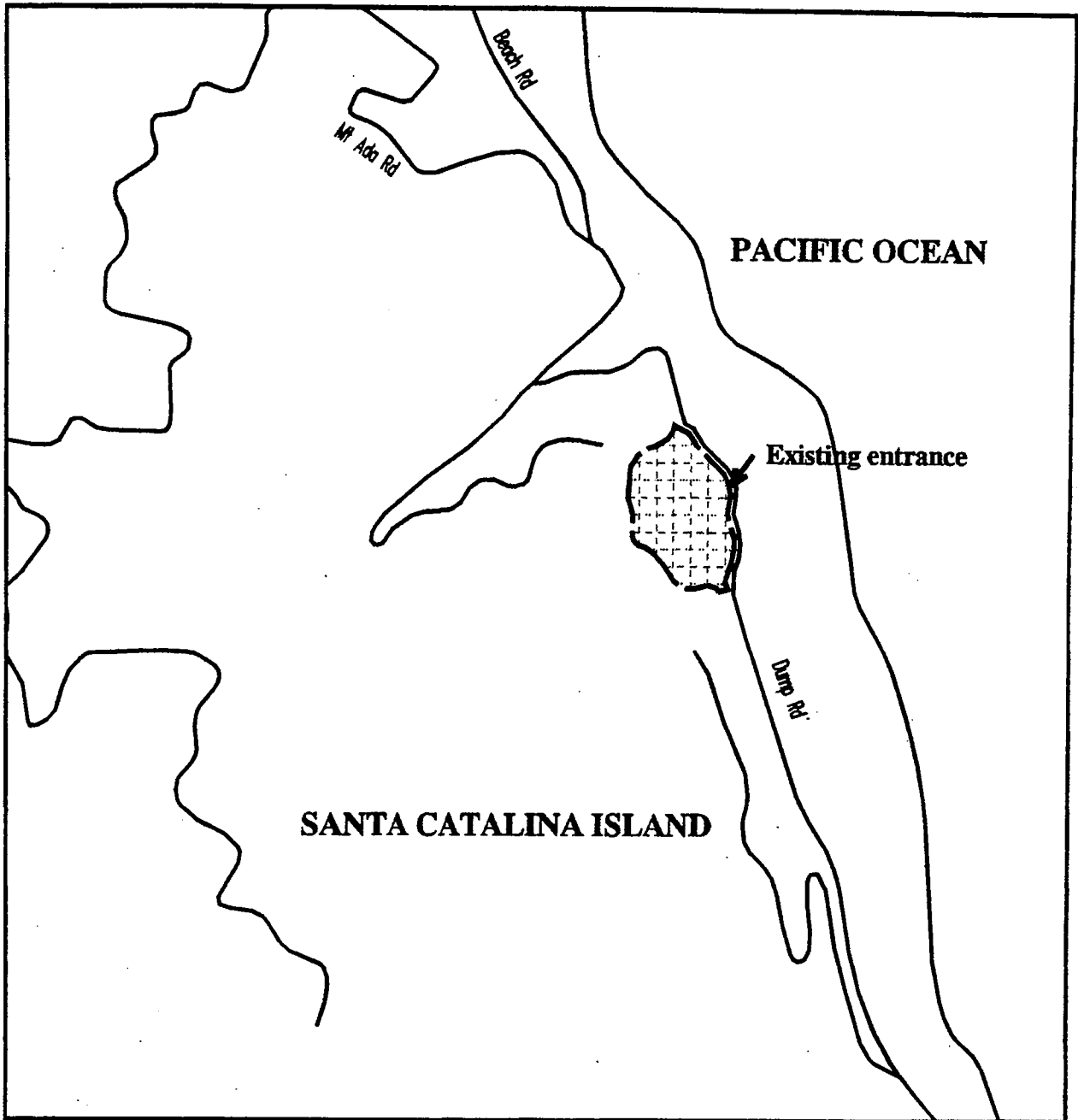
7. PERMITTED WASTE TYPES - solid waste

8. FUTURE LAND USE - open space

9. RESTRICTIONS - no limits on waste origin

Note: Calculated or assumed quantities are shown in brackets. Facility operation includes on-site incineration of solid waste.

Ref: \ARCS\SPACE\WK_DUMP\SD\AML_DIR\PEBBLY.AML 21 MAY 97 08:30:23 WEDNESDAY



LEGEND



Existing Disposal Area



Limits of Disposal Areas



Property Boundary



SCALE 1" = 400'

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PEBBLY BEACH LANDFILL

Los Angeles County Countywide Siting Element

Figure 3-16

Table 3-17

**SAN CLEMENTE LANDFILL
FACT SHEET**

1. FACILITY INFORMATION

Owner: NAS North Island Staff Civil Engineer

Operator: U.S. Navy Public Works

Address: Naval Aux. Landing Field, San Clemente Island

Operating Days: Tuesday and Thursday

SWFP #: 19-AA-0063

SWFP Issue Date: 4/23/92

Last Review Date: 8/24/92

Review Due Date: review in progress

2. FACILITY REMAINING PERMITTED CAPACITY (as of December 31, 1995)

Remaining Permitted Capacity: [154,000 tons] 384,900 cubic yards

Estimated Remaining Life: in excess of 100 years (based on 100 cubic yards per month)

In-Place Density: 0.4 tons/cubic yard

3. MAXIMUM PERMITTED DAILY CAPACITY - none specified, however, SWFP indicates that at the time that the SWFP was issued, the Landfill was disposing of 100 cubic yards per month. Based on this information, the following is provided:

Daily Equivalent^a: [4.8 tons] [12 cubic yards]

Monthly: [40 tons] 100 cubic yards

Yearly Equivalent: [480 tons] [1,200 cubic yards]

4. 1995 AVERAGE DAILY WASTE QUANTITIES

[6 tons, 2-day week] [15 cubic yards, 2-day week]

[2 tons, 6-day week] [5 cubic yards, 6-day week]

5. LAND USE/CONDITIONAL USE PERMIT - N/A

6. WASTE DISCHARGE REQUIREMENTS - N/A

7. PERMITTED WASTE TYPES - solid waste

8. FUTURE LAND USE - no areas to close prior to 2010

9. RESTRICTIONS - limited to use by the U.S. Navy

^a landfill only accepts waste two days per week or 100 days per year

Note: Calculated or assumed quantities are shown in brackets.

**SAVAGE CANYON (WHITTIER) LANDFILL
FACT SHEET**

1. **FACILITY INFORMATION**

Owner: City of Whittier

Operator: Owner

Address: 13919 E. Penn St., Whittier 90602

Operating Days: Monday - Saturday

SWFP #: 19-AH-0001

SWFP Issue Date: 12/14/78

Last Review Date: 12/14/88

Review Due Date: review in progress

2. **FACILITY REMAINING PERMITTED CAPACITY (as of December 31, 1995)**

Remaining Permitted Capacity: 2,662,000 tons [4,436,000 cubic yards]

Estimated Remaining Life: 32 years (based on 230 tpd, 6 days per week)

In-Place Density: 0.60 tons/cubic yard

3. **MAXIMUM PERMITTED DAILY CAPACITY**

Daily: 350 tons [583 cubic yards]

Yearly Equivalent: [109,200 tons] [182,000 cubic yards]

4. **1995 AVERAGE DAILY WASTE QUANTITIES**

232 tons [387 cubic yards]

5. **LAND USE/CONDITIONAL USE PERMIT** - Land Use Permits/Finding of Fact of the Whittier City Council Resolution No. 4907

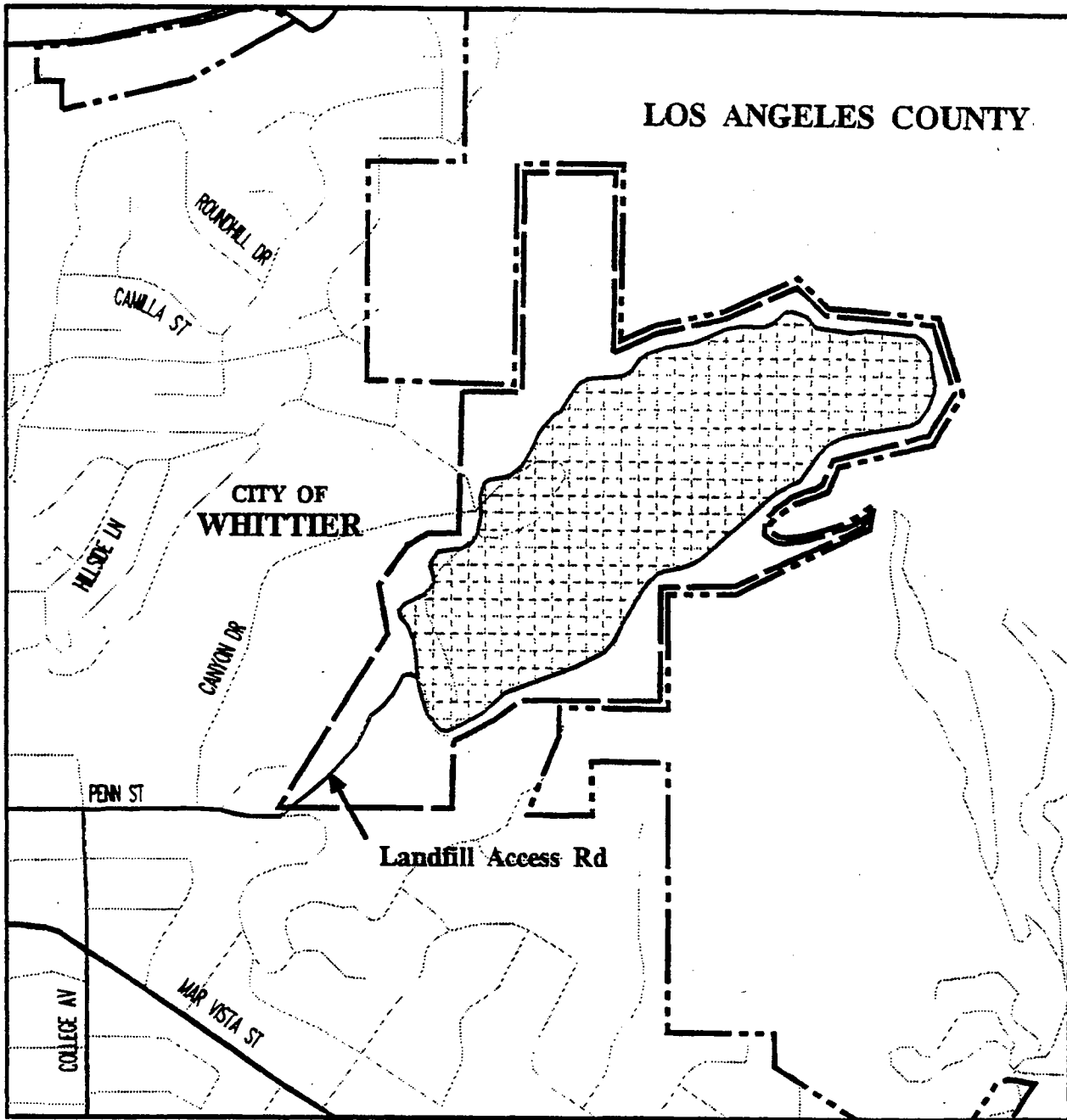
6. **WASTE DISCHARGE REQUIREMENTS** - Order #: 89-102 Issued: 9/25/89
Amended by Order # 93-062 on 10/9/93 (Subtitle D)

7. **PERMITTED WASTE TYPES** - solid waste

8. **FUTURE LAND USE** - no areas to close prior to 2010

9. **RESTRICTIONS** - origin of waste limited to that generated in the City of Whittier per City ordinance

Note: Calculated or assumed quantities are shown in brackets.



LOS ANGELES COUNTY

CITY OF WHITTIER

Landfill Access Rd

LEGEND



Existing Disposal Area



Limits of Disposal Areas



Property Boundary



City Limits



SCALE 1" = 1000'



Figure 3-18
SAVAGE CANYON SANITARY LANDFILL

Los Angeles County Countywide Siting Element

Source: Los Angeles County Department of Public Works, January 1996

Ref:\jms\paw\jst_dump\paw\paw.apr 06 APR 95 10:21:27 THURSDAY

Table 3-19

TWO HARBORS LANDFILL - facility closed 10/95

FACT SHEET

1. **FACILITY INFORMATION**

Owner: Catalina Conservancy

Operator: Doug Bombard Enterprises, Inc.

Address: Two Harbors, Santa Catalina Island 90704

Operating Days: Monday - Friday

SWFP #: 19-AA-0062

SWFP Issue Date: 8/25/87

Last Review Date: 8/25/92

Review Due Date: facility closed 10/95

2. **FACILITY REMAINING PERMITTED CAPACITY (as of December 31, 1995)**

Remaining Permitted Capacity: 340 tons [570 cubic yards]

Estimated Remaining Life: facility closed 10/95

In-Place Density: 0.60 tons/cubic yard

3. **MAXIMUM PERMITTED DAILY CAPACITY**

Daily: 3.5 tons [5.8 cubic yards]

Yearly Equivalent: [910 tons] [1,520 cubic yards]

4. **1995 AVERAGE DAILY WASTE QUANTITIES** - through September 1995

0.4 tons [0.6 cubic yards]

5. **LAND USE/CONDITIONAL USE PERMIT** - Permit #: 90509-(4)

Issued: 9/10/92

Expiration: 2/1/95

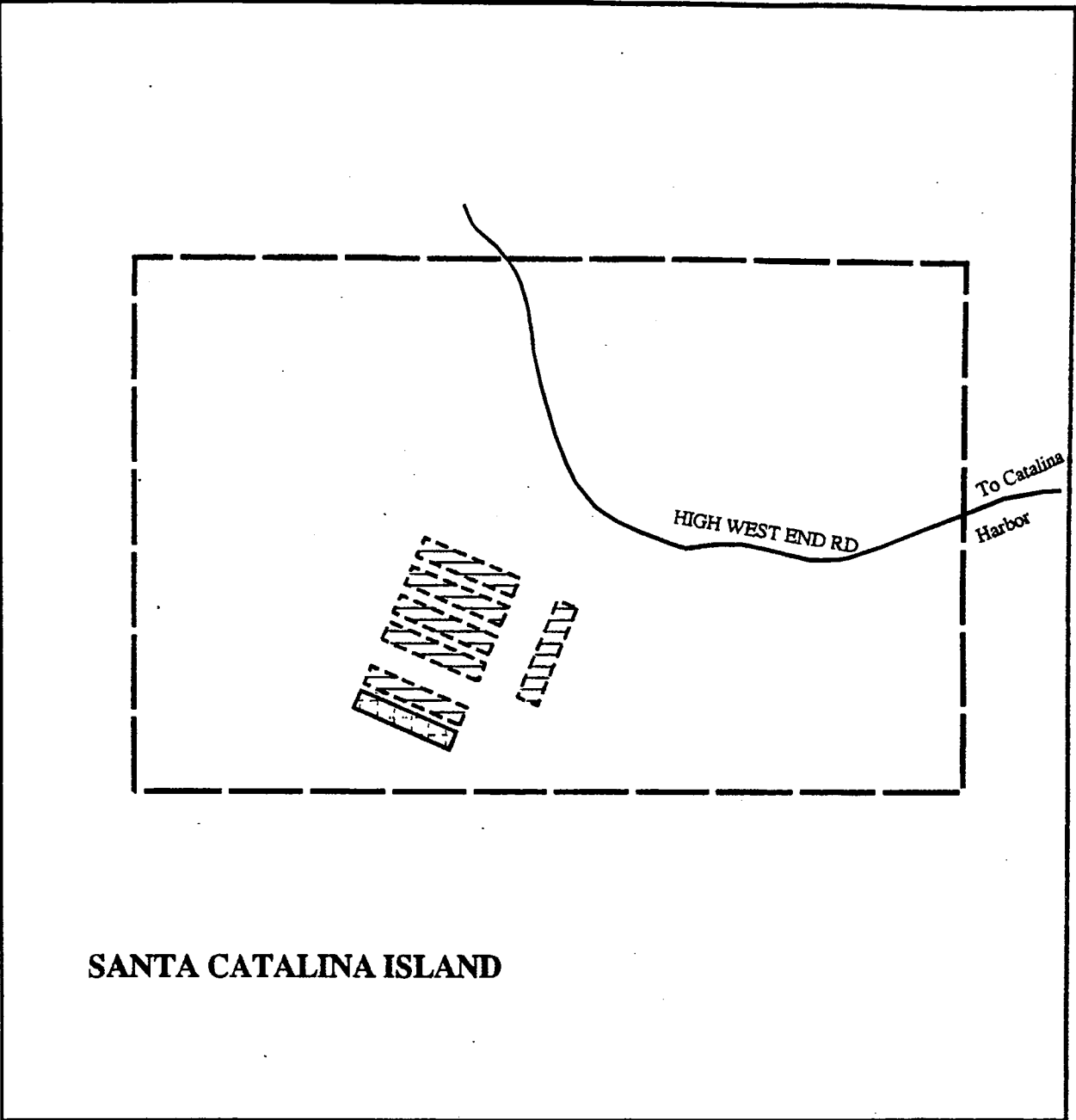
6. **WASTE DISCHARGE REQUIREMENTS** - Order #: 72-71 Issued: 12/13/72
Amended by Order # 93-062 on 10/9/93 (Subtitle D)

7. **PERMITTED WASTE TYPES** - solid waste

8. **FUTURE LAND USE** - open space






9. **RESTRICTIONS** - no limits on waste origin

Note: Calculated or assumed quantities are shown in brackets.



SANTA CATALINA ISLAND

LEGEND

-  Closed Disposal Area
-  Existing Disposal Area
-  Limits of Closed Areas
-  Limits of Disposal Areas
-  Property Boundary



TWO HARBORS LANDFILL
 Los Angeles County Countywide Siting Element

Figure 3-19

Source: Los Angeles County Department of Public Works, January 1997

Ref: Arcspace/htk_dumps83.html_dirt/harbors_ahd/APR 97 08:45:10 FRIDAY

AZUSA LAND RECLAMATION COMPANY
(Unclassified Portion Only, see Table 3-3 for Class III Portion)
FACT SHEET

1. FACILITY INFORMATION

Owner: American Sheds, Inc. (both owner and operator are subsidiaries of Browning-Ferris Industries of California, Inc.)	Operator: Azusa Land Reclamation Company
Address: 1201 W. Gladstone St., Azusa 91702	Operating Days: Monday - Saturday
SWFP #: 19-AA-0013	SWFP Issue Date: 12/8/89
Last Review Date: 12/8/94	Review Due Date: review in progress

2. FACILITY REMAINING PERMITTED CAPACITY (as of December 31, 1995)

Remaining Permitted Capacity:	26,500,000 tons	[17,700,000 cubic yards]
Estimated Remaining Life:	13 years (based on 6,500 tpd, 6 days per week)	
Inert Debris Density:	[1.50 tons/cubic yard]	

3. MAXIMUM PERMITTED DAILY CAPACITY

Daily:	6,500 tons	[4,333 cubic yards]
Yearly Equivalent:	[2,028,000 tons]	[1,352,000 cubic yards]

4. 1995 AVERAGE DAILY WASTE QUANTITIES

0 tons	[0 cubic yards]
--------	-----------------

**5. LAND USE/CONDITIONAL USE PERMIT - Permit: Owner Participation Agreement No.1
 (incorporated CUP# C-151 of 4/9/75)**

Issued: 1/26/84	Expiration: completion of project
------------------------	--

**6. WASTE DISCHARGE REQUIREMENTS - Order #: 86-059 Issued: 7/26/86
 Order #: 88-133 Issued: 11/28/88
 Amended by Order # 93-062 on 10/9/93 (Subtitle D)
 Amended by Order # 95-151 on 10/30/95 (rescinded 10/96)^a**

7. PERMITTED WASTE TYPES - inert solid waste

8. FUTURE LAND USE - open space; continued use of a materials recovery facility

9. RESTRICTIONS - no limits on waste origin

^aOrder #95-151 permitted the Landfill to accept solid waste in the 80-acre portion but the California Regional Water Quality Control Board (CRWQCB) rescinded the order on 10/3/96.

Note: Calculated or assumed quantities are shown in brackets.

**FOR A MAP OF AZUSA LAND RECLAMATION LANDFILL
SEE FIGURE 3-3 (PAGE 3-15)**

Table 3-21

**NU-WAY LIVE OAK LANDFILL - received SWFP permit 6/3/96
FACT SHEET**

1. **FACILITY INFORMATION**

Owner: Garrett Management Inc. & Mnoian Management Inc. **Operator:** Sanifill, Inc.
Address: 13620 Live Oak Lane, Irwindale 91706 **Operating Days:** Monday - Saturday
SWFP #: 19-AA-0849 **SWFP Issue Date:** 6/3/96
Last Review Date: 6/3/96 **Review Due Date:** 6/3/2001

2. **FACILITY REMAINING PERMITTED CAPACITY (as of December 31, 1995)**

Remaining Permitted Capacity: 18,000,000 tons 12,000,000 cubic yards
Estimated Remaining Life: 9.6 years (based on 6,000 tpd, 6 days per week)
In-Place Density: 1.50 tons/cubic yard

3. **MAXIMUM PERMITTED DAILY CAPACITY**

Daily: 6,000 tons [4,000 cubic yards]
Yearly Equivalent: [1,872,000 tons] [1,248,000 cubic yards]

4. **1995 AVERAGE DAILY WASTE QUANTITIES** - not applicable - facility did not have SWFP in 1995
received SWFP 6/3/96

5. **LAND USE/CONDITIONAL USE PERMIT** - Permit #: CUP 94-55-1381

Issued: 12/15/94 **Expiration:** completion of project

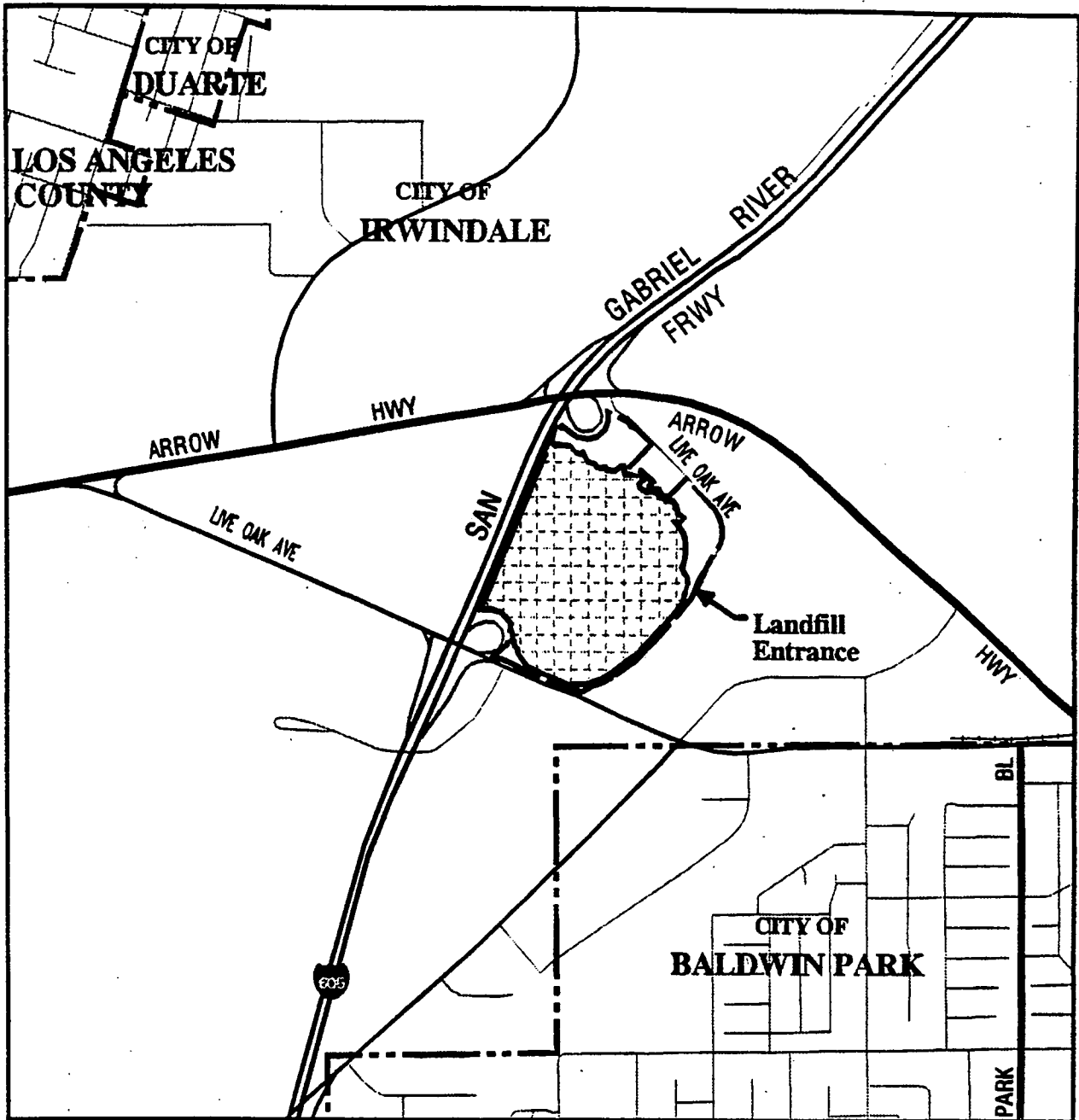
6. **WASTE DISCHARGE REQUIREMENTS** - Order #: 91-016 **Issued:** 1/28/91

7. **PERMITTED WASTE TYPES** - inert solid waste





8. **FUTURE LAND USE** - commercial development

9. **RESTRICTIONS** - no limits on waste origin

Note: Calculated or assumed quantities are shown in brackets.



LEGEND

-  Existing Disposal Area
-  Limits of Disposal Areas
-  Property Boundary
-  City Limits



SCALE 1" = 1400'

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NU-WAY LIVE OAK UNCLASSIFIED LANDFILL

Los Angeles County Countywide Siting Element

Figure 3-20

Table 3-22

**PECK ROAD GRAVEL PIT
FACT SHEET**

1. **FACILITY INFORMATION**

Owner: S.L.S. & N., Inc.

Operator: Owner

Address: 128 E. Live Oak Ave., Monrovia 91016

Operating Days: Monday - Saturday

SWFP #: 19-AA-0838

SWFP Issue Date: 12/9/88

Last Review Date: 12/9/93

Review Due Date: review in progress

2. **FACILITY REMAINING PERMITTED CAPACITY (as of December 31, 1995)**

Remaining Permitted Capacity: 10,070,000 tons 6,713,000 cubic yards

Estimated Remaining Life: 27 years (based on 1,210 tpd, 6 days per week)

In-Place Density: 1.50 tons/cubic yard

3. **MAXIMUM PERMITTED DAILY CAPACITY**

Daily: 1,210 tons [807 cubic yards]

Yearly Equivalent: [377,520 tons] [251,680 cubic yards]

4. **1995 AVERAGE DAILY WASTE QUANTITIES**

360 tons [240 cubic yards]

5. **LAND USE/CONDITIONAL USE PERMIT - Permit #: CUP 87-24**

Issued: 6/12/87

Expiration: completion of project

6. **WASTE DISCHARGE REQUIREMENTS - Order #: 82-80**

Issued: 11/22/82

7. **PERMITTED WASTE TYPES - inert solid waste**

8. **FUTURE LAND USE - no areas to close prior to 2010**

9. **RESTRICTIONS - no limits on waste origin**

Note: Calculated or assumed quantities are shown in brackets.

Table 3-23
RELIANCE PIT #2
FACT SHEET

1. **FACILITY INFORMATION**

Owner: CalMat Properties Co.	Operator: Owner
Address: Foothill Bl. & Irwindale Ave., Irwindale 91706	Operating Days: Monday - Saturday
SWFP #: 19-AA-0854	SWFP Issue Date: 6/29/93
Last Review Date: 6/29/93	Review Due Date: 6/29/98

2. **FACILITY REMAINING PERMITTED CAPACITY (as of December 31, 1995)**

Remaining Permitted Capacity:	16,560,000 tons	[11,040,000 cubic yards]
Estimated Remaining Life:	9 years (based on 6,000 tpd, 6 days per week)	
In-Place Density:	[1.50 tons/cubic yard]	

3. **MAXIMUM PERMITTED DAILY CAPACITY**

Daily:	6,000 tons	[4,000 cubic yards]
Yearly Equivalent:	[1,872,000 tons]	[2,808,000 cubic yards]

4. **1995 AVERAGE DAILY WASTE QUANTITIES**

1,410 tons	[940 cubic yards]
------------	-------------------

5. **LAND USE/CONDITIONAL USE PERMIT - Permit #: 70-1-CU**

Issued: 6/4/70	Expiration: project completion
-----------------------	---------------------------------------

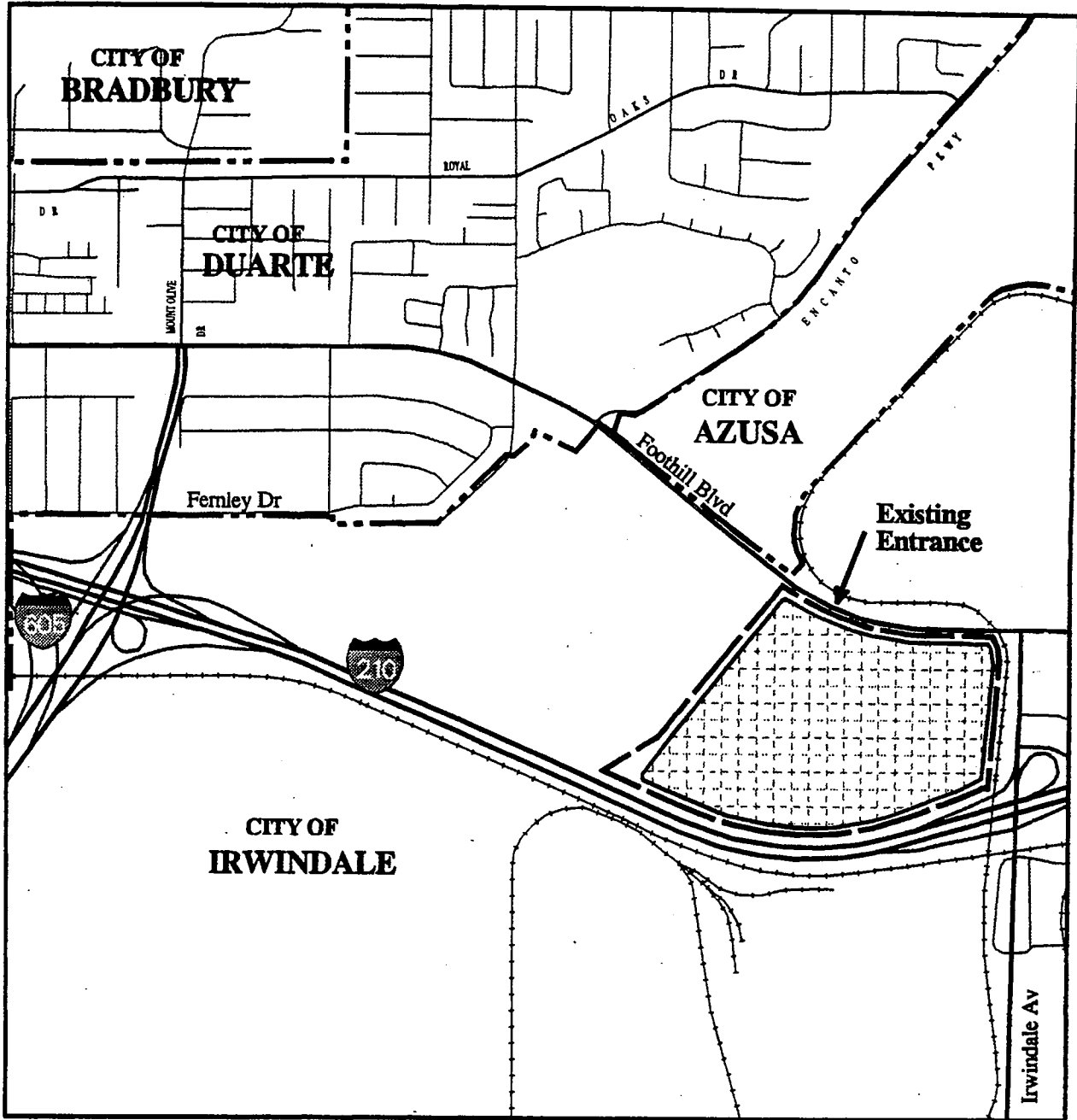
6. **WASTE DISCHARGE REQUIREMENTS - Order #: 91-120** **Issued:** 12/4/91

7. **PERMITTED WASTE TYPES** - inert solid waste





8. **FUTURE LAND USE** - based on the 1995 disposal rate, no areas to close prior to 2010

9. **RESTRICTIONS** - no limits on waste origin; facility limited to 150 vehicles per day

Note: Calculated or assumed quantities are shown in brackets.



LEGEND

-  Existing Disposal Area
-  Limits of Disposal Areas
-  Property Boundary
-  City Limits



SCALE 1" = 1300'

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RELIANCE PIT #2 LANDFILL
Los Angeles County Countywide Siting Element

Figure 3-22

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**COMMERCE REFUSE-TO-ENERGY FACILITY (CREF)
FACT SHEET**

1. FACILITY INFORMATION

Owner: Commerce Refuse-to-Energy Authority	Operator: County Sanitation Districts of Los Angeles County
Address: 5026 Sheila St., Commerce 90040	Operating Days: Monday - Friday (receive) Monday - Sunday (incinerate)
SWFP #: 19-AA-0506	SWFP Issue Date: 10/10/91
Last Review Date: 10/10/91	Review Due Date: 10/10/96

2. FACILITY REMAINING PERMITTED CAPACITY (as of December 31, 1995)

467 tpd-6, based on SWFP limit of 2,800 tons per week, expressed as a daily average, six days per week

3. MAXIMUM PERMITTED DAILY CAPACITY

Daily Received:	1,000 tons
Weekly Received (5 days):	2,800 tons
Weekly Incinerated (7 days)*:	2,800 tons
Yearly Equivalent Received:	[145,600 tons]

4. 1995 AVERAGE DAILY WASTE QUANTITIES

Received (5 days):	407 tpd-5	[339 tpd-6]
Incinerated (7 days):	282 tpd-7	[329 tpd-6]
Ash Generated and Diverted (7 days/week):	76 tpd-7	[88 tpd-6]

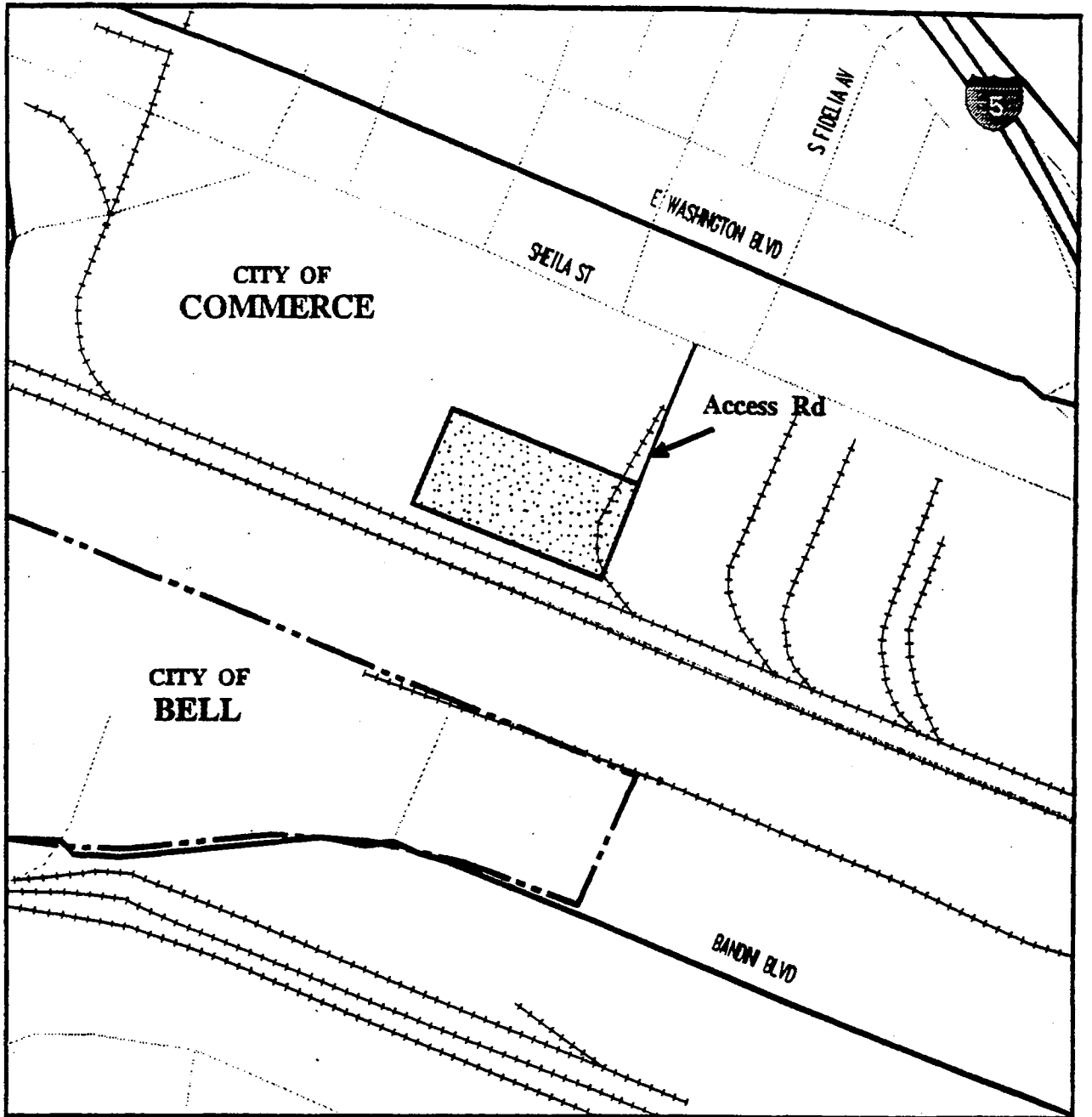
5. LAND USE/CONDITIONAL USE PERMIT - not applicable

6. PERMITTED WASTE TYPES - solid waste

7. FUTURE LAND USE - no areas to close prior to 2010

8. RESTRICTIONS - facility requires high energy content waste

* Maximum permitted rate of combustion during any seven consecutive days.
Note: Calculated or assumed quantities are shown in brackets.



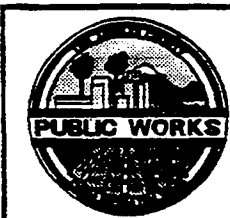
LEGEND

-  Existing Transformation Facility
-  City Limits



CS SERVICES
SCALE 1" = 600'

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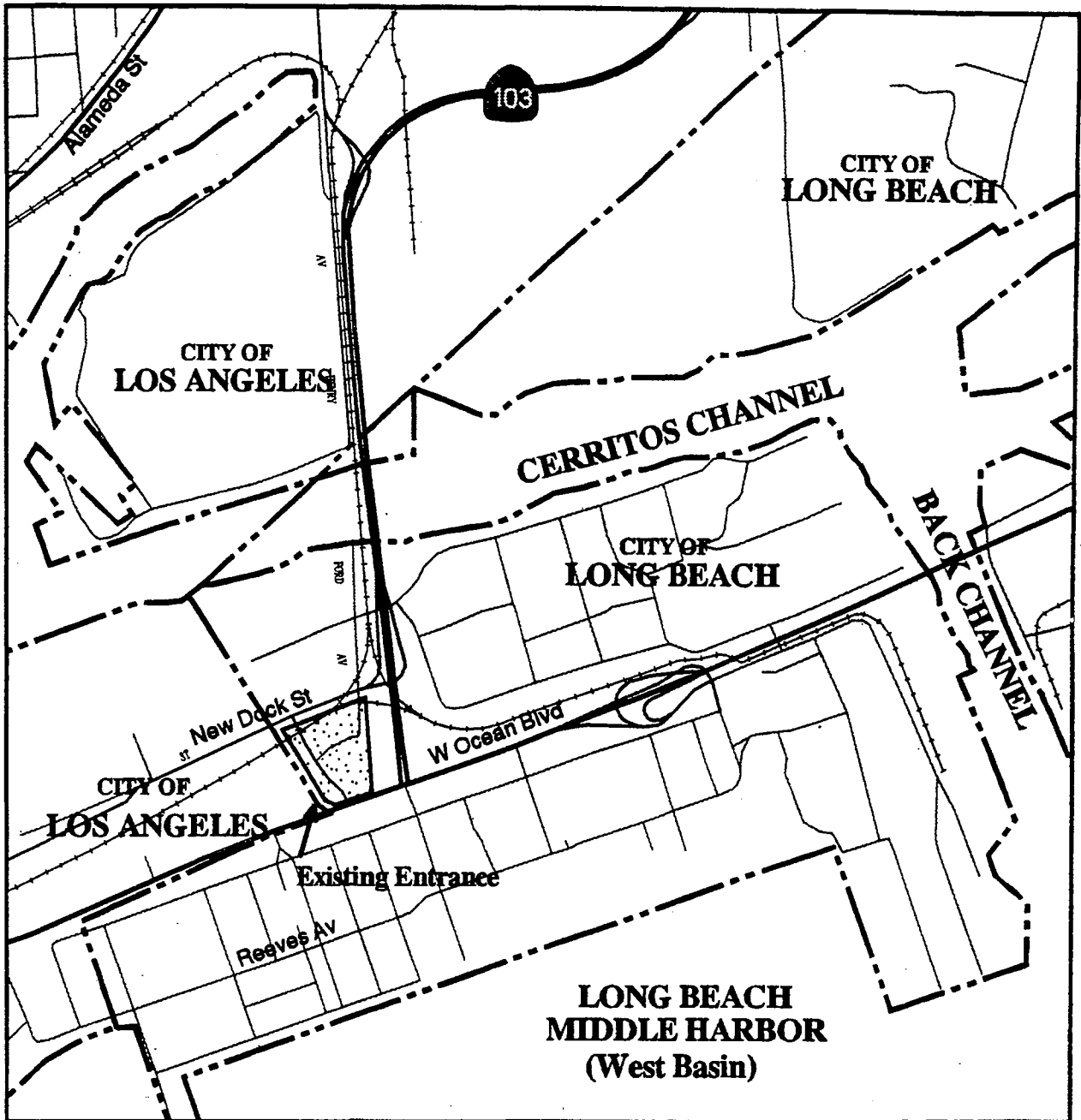


COMMERCE REFUSE TO ENERGY FACILITY

Los Angeles County Countywide Siting Element

Figure 3-23

Source: Los Angeles County Department of Public Works, January 1996



LEGEND

-  Existing Transformation Facility
-  City Limits



GIS SERVICES
SCALE 1" = 1600'

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SOUTHEAST RESOURCE RECOVERY FACILITY

Los Angeles County Countywide Siting Element

Figure 3-24

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**CHAPTER 4
CURRENT DISPOSAL RATE AND
ASSESSMENT OF DISPOSAL CAPACITY NEEDS**

4.1 PURPOSE AND REQUIREMENTS

The purpose of this chapter is to quantify the current disposal rate in Los Angeles County and address the disposal capacity needs of the 88 cities in Los Angeles County and the County unincorporated communities for a planning period of 15 years pursuant to Section 187553(b), Title 14 of the CCR. The 15-year planning period is defined to begin with the year in which the CSE is prepared, which for this document is 1996. Specific requirements for the content of this chapter are drawn from the California Code of Regulations, Title 14, Division 7, Chapter 9, Article 6.5, Sections 18755 and 18755.3.

4.2 SPECIFIC REQUIREMENTS

The California Code of Regulations, Title 14, Section 18755.3 requires the following:

- a) Each county, with assistance from the local task force, shall include documentation in the countywide Siting Element providing the following information:
 - (1) The January 1, 1990, permitted disposal capacity in tons and cubic yards established pursuant to the CCR, Title 14 Section 18777(b).
 - (2) The existing permitted disposal capacity in tons and cubic yards in the year the Siting Element is prepared.
- b) The anticipated disposal capacity needs shall be described in tons and cubic yards, on an annual basis and aggregated for a minimum 15-year period, beginning with the year in which the Siting Element is prepared and any year the Siting Element is revised.
- c) Area(s) shall be selected where solid waste disposal facilities are envisioned to be expanded or sited and constructed for the purpose of meeting a required minimum of 15 years of combined permitted disposal capacity. Each county shall consider the following in determining the areas where solid waste disposal facilities are planned to be expanded or sited and constructed:
 - (1) The total amount of solid waste generated, expressed in tons and cubic yards for volumetric capacity for the required 15-year period.

- (2) The existing remainder of combined permitted disposal capacity in tons and cubic yards for the required 15-year period.
- (3) An estimation of the total disposal capacity in tons and cubic yards needed to meet a minimum of 15 years of combined permitted disposal capacity.

4.3 EXISTING DISPOSAL QUANTITIES AND CAPACITY

4.3.1 1990 Disposal Quantities and Capacity

In accordance with the requirements of the CCR, Title 14, Section 18777, in March 1991, the Task Force completed a study that quantified the amount of solid waste disposed of at landfills and transformation facilities located in Los Angeles County, as well as a projection of remaining permitted combined capacity of these facilities. A summary of the study was submitted to the California Integrated Waste Management Board (CIWMB) in a report dated March 28, 1991. A copy of the report is provided in Appendix 4-A. An overview of the study is provided below.

4.3.1.1 1990 Disposal Quantities

In 1990, the residents/businesses of Los Angeles County disposed of approximately 15.9 million tons of solid waste at existing landfills and transformation facilities within the County. Of this amount, approximately 13.5 million tons were disposed at 19 permitted Class III landfills; 0.3 million tons were managed by two waste-to-energy facilities (does not include 0.15 million tons of residual ash which was landfilled); and 2.1 million tons were disposed at the unclassified landfills. A list of the Class III facilities, as well as disposal quantities for each facility as provided in the March 28, 1991, report to the CIWMB is provided in Table 4-1. The disposal quantities listed were established based on monthly surveys of solid waste disposal facilities conducted by the Los Angeles County Department of Public Works during the 1990 calendar year, a written survey of each solid waste disposal facility conducted during the month of October 1990, and a telephone survey conducted in January 1991.

The above quantities translate into a 1990 average disposal rate of approximately 51,000 tons per day (six days/week) Countywide; 43,245 tons per day at Class III landfills; 1,000 tons per day at waste-to-energy facilities (excluding 500 tons of ash landfilled), and 6,755 tons per day at unclassified landfills.

4.3.1.2 1990 Remaining Permitted Disposal Capacity

The remaining permitted disposal capacity for Class III landfills as of December 31, 1990, was also established by the Task Force at approximately 99 million tons (156 million cubic yards based on in-place solid waste density provided by landfill operators). The analysis was

TABLE 4-1

REMAINING PERMITTED COMBINED DISPOSAL CAPACITY OF EXISTING SOLID WASTE CLASS III LANDFILLS IN LOS ANGELES COUNTY
AS OF JANUARY 1990 AND JANUARY 1991

Class III Landfill	Solid Waste Facility Permit	Operation Days/week	Jan. 1991	LUP	1990	Quantity of	Projected remaining		Estimated remaining	
			SWFP Daily Capacity	Daily Capacity	Average Daily Tonnage 6days/wk	Municipal Solid Waste Disposed Year 1990	permitted capacity (effective January 1, 1991)		permitted capacity (effective January 1, 1990)	
			Tons	Tons	Tons	Million Tons	Million Tons	Million (d) Cubic Yds	Million Tons	Million (d) Cubic Yds
Antelope Valley	19-AA-0009	7	350	--	400	0.125	0.925	2.6	1.050	3.0
Azusa Land Reclamation	19-AA-0013	6	6,500	6,500	2,756	0.86	0	0	0.86	1.23
BKK	19-AF-0001	6	12,000 (a)	--	9,744	3.04	15.96	23.8	19.00	28.3
Bradley West	19-AR-0008	6	7,000	9,500	1,923	0.60	11.8	19.7	12.4	20.7
Brand Park	19-AA-0006	5	104	--	48	0.015	0.306	0.875	0.321	0.918
Burbank	19-AA-0040	5	240	--	196	0.061	11.44	22.0	11.50	22.1
Calabasas	19-AA-0056	6	3,500	--	2,724	0.85	15.155	21.6	16.005	22.8
Chiquita Canyon	19-AA-0052	7	5,000	--	1,763	0.55	1.78	2.2	2.33	2.9
Lancaster	19-AA-0050	6	450	--	295	0.092	0.15	0.5	0.24	0.8
Lopez Canyon	19-AA-0820	5	4,100 (b)	4,000	3,109	0.97	4.2	7.0	5.2	8.6
Pebble Beach	19-AA-0061	6	30	--	10	0.003	0.097	0.16	0.100	0.16
Pitchess Honor Rancho	19-AA-0057	5	23	--	17	0.0054	2.24	3.73	2.25	3.74
Puente Hills	19-AA-0053	6	12,000	13,200	11,859	3.7	7.5	10.7	11.2	16.0
San Clemente	19-AA-0063	5	1	--	1	0.002	0.024	0.034	0.026	0.037
Scholl Canyon	19-AA-0012	6	3,400	--	2,179	0.68	13.32	19	14.00	20
Spadra	19-AA-0015	6	3,000	--	2,724	0.85	6.95	9.93	7.80	11.14
Sunshine Canyon	19-AR-0002	6	7,000	6,000	3,141	0.98	0.41	1.64	1.4	5.66
Two Harbors	19-AA-0062	5	3.5	--	3.5	0.000088	0.0073	0.0104	0.0074	0.0105
Whittier (Savage Canyon)	19-AH-0001	6	350	--	353	0.11	6.39	10.6	6.50	10.8
TOTAL			63,950 (c)		43,245	13.49	98.65	156.08	112.15	177.42

FOOTNOTES:

- (a) Daily capacity established in 6/90, Notice and Order, as amended, by the City of West Covina's Local Enforcement Agency.
- (b) Daily capacity established by Report of Disposal Site Information and Courts.
- (c) Average daily tonnage, Monday through Friday.
- (d) Based on in-place solid waste density provided by landfill operators.

NOTES:

This table (4-1) is based upon a table that is included in the Task Force's March 28, 1991 report to the CIWMB (See Appendix 4A).

Source: Los Angeles County Department of Public Works, January 1997.

based on various data collected by the Los Angeles County Department of Public Works from facility operators and site specific permit criteria established by local land use agencies, local enforcement agencies, California Regional Water Quality Control Boards and the California Integrated Waste Management Board. A summary of the data collected and various permit limitations are also shown on Table 4-1.

The remaining permitted combined disposal capacity of Class III landfills as of January 1, 1990, can be established at approximately 112.5 million tons (178 million cubic yards), which is the sum of the remaining permitted capacity as of December 31, 1990, and the total quantities disposed during the 1990 calendar year.

4.3.2 1990-1995 Disposal Trends

For many years, the Los Angeles County Department of Public Works has established a process for tracking solid waste disposal quantities at landfills and transformation facilities based on the monthly Solid Waste Management Fee invoices submitted to the Department on a quarterly basis by the facility operators. These invoices are audited periodically and are compared with the quantities landfill and transformation facility operators report to local enforcement agencies, as well as other regulatory agencies.

State law, Section 41821.5 of the PRC, has provided jurisdictions an additional tool to track waste quantities through the establishment of the Disposal Reporting System (see Section 4.3.3.1). As of January 1995, all permitted solid waste facility operators were required by the new regulations to report quarterly to their respective county or regional agency the amount of waste disposed by each jurisdiction utilizing their facilities.

Based on the disposal information from these two tracking systems, a downward trend in the quantities of solid waste disposed was observed during the period 1990 through 1995, at permitted Class III landfills within the County with no reduction in quantities of solid waste managed at the two transformation facilities. The reported disposal quantities during this period are summarized on a yearly basis in Table 4-2. While aggressive waste diversion programs being implemented by jurisdictions throughout the County contributed in substantial measure to this drop in disposal quantities, much of this reduction occurred as a result of the recession experienced in the region between 1990 and 1995.

Another trend that developed during this period was an increase in the amount of municipal solid waste imported from other counties such as Orange, Riverside, San Bernardino, San Diego, and Ventura Counties for disposal at Los Angeles County disposal facilities. During the 1995 calendar year, approximately 774,000 tons of solid waste were disposed at in-County facilities which originated from neighboring counties. This trend was attributed to steep increases in disposal costs experienced in those counties and/or the difficulties in permitting new disposal capacity.

TABLE 4-2
(PAGE 1 OF 2)
SUMMARY OF YEARLY SOLID WASTE DISPOSAL QUANTITIES*
LOS ANGELES COUNTY

Year	A		B		C		D		E		F		G	
	In-County Class III Landfill Disposal	TONS	In-County Disposal at Transformation Facilities	TONS	Exports	TONS	Imports	TONS	In-County Unclassified Landfill Disposal	TONS	Total Disposal at Class III Landfill + Transformation Facilities A+B+C-D	TONS	Total Disposal at Class III Landfill + Transformation + Unclassified landfill A+B+C+E-D	TONS
1990	13,492,000		312,000		N/A		N/A		2,108,000		13,804,000		15,912,000	
1991	12,230,000		465,000		N/A		N/A		867,000		12,695,000		13,562,000	
1992	11,922,000		523,000		22,000		N/A		867,000		12,467,000		13,334,000	
1993	11,300,000		518,000		122,000		N/A		739,000		11,940,000		12,679,000	
1994	11,590,000 **		526,000		128,000		305,000		522,000 **		11,939,000 **		12,461,000 **	
1995	11,646,000		573,000		52,000		774,000		530,000		11,497,000		12,027,000	

Column A Total disposal at Class III landfills in Los Angeles County. Includes waste imported from jurisdictions outside the County.
Column B Total disposal at transformation facilities in Los Angeles County. Includes waste imported from jurisdictions outside the County. For 1990 excludes 500 tons/day of ash which were landfilled, for other years, ash has been diverted from disposal.
Column C Waste exported by jurisdictions in Los Angeles County to disposal facilities located outside the County.
Column D Waste disposed at Class III landfills and transformation facilities located in Los Angeles County which originated outside the County.
Column E Total inert waste disposed by jurisdictions in Los Angeles County at permitted unclassified landfills.
Column F Includes disposal by jurisdictions in Los Angeles County at Class III landfills, Transformation facilities, and the waste exported to disposal facilities located outside the County. For 1994 and 1995, total excludes waste imported from jurisdictions outside Los Angeles County.
Column G Includes disposal at Class III landfills, transformation facilities, permitted Unclassified landfills, and the waste exported for disposal at landfills outside Los Angeles County. For 1994 and 1995 total excludes waste imported from jurisdictions outside Los Angeles County.

Notes:

- * See Chapter 4, Subsections 4.3.2 and 4.3.3 for discussion.
- ** Excludes debris generated as a result of Northridge Earthquake.
- N/A Not available.

Source : Los Angeles County Department of Public Works, January 1997

**TABLE 4-2
(PAGE 2 OF 2)
SUMMARY OF YEARLY SOLID WASTE DISPOSAL QUANTITIES*
LOS ANGELES COUNTY**

Year	A		B		C		D		E		F		G	
	In-County Class III Landfill Disposal	Cubic Yards	In-County Disposal at Transformation Facilities	Cubic Yards	Exports	Cubic Yards	Imports	Cubic Yards	In-County Unclassified Landfill Disposal	Cubic Yards	Total Disposal at Class III landfill + Transformation Facilities	Cubic Yards	Total Disposal at Class III landfill + Transformation + Unclassified landfill	Cubic Yards
1990	22,486,667		520,000		N/A		N/A		3,513,333		23,006,667		26,520,000	
1991	20,383,333		775,000		N/A		N/A		1,445,000		21,158,333		13,562,000	
1992	19,870,000		871,667		36,667		N/A		1,445,000		20,778,334		13,334,000	
1993	18,833,333		863,333		203,333		N/A		1,231,667		19,899,999		12,679,000	
1994	19,316,667 **		876,667		213,333		508,333		870,000 **		11,939,000 **		12,461,000 **	
1995	19,410,000		955,000		86,667		1,290,000		883,333		19,161,667		20,045,000	

Column A Total disposal at Class III landfills in Los Angeles County. Includes waste imported from jurisdictions outside the County.
 Column B Total disposal at transformation facilities in Los Angeles County. Includes waste imported from jurisdictions outside the County. For 1990 excludes 500 tons/day of ash which were landfilled, for other years, ash has been diverted from disposal.
 Column C Waste exported by jurisdictions in Los Angeles County to disposal facilities located outside the County.
 Column D Total inert waste disposed by jurisdictions in Los Angeles County at permitted unclassified landfills.
 Column E Total disposal by jurisdictions in Los Angeles County at Class III landfills, Transformation facilities, and the waste exported to disposal facilities located outside the County. For 1994 and 1995, total excludes waste imported from jurisdictions outside Los Angeles County.
 Column F Includes disposal at Class III landfills, transformation facilities, permitted Unclassified landfills, and the waste exported for disposal at landfills outside Los Angeles County. For 1994 and 1995 total excludes waste imported from jurisdictions outside Los Angeles County.

Notes:
 * The quantities expressed in Table 4-2 (page 2 of 2) were obtained from Table 4-2 (page 1 of 2) using a conversion factor of 1,200 lb/cy.
 ** See Chapter 4, Subsections 4.3.2 and 4.3.3 for discussion.
 ** Excludes debris generated as a result of Northridge Earthquake.
 N/A Not available.

Source : Los Angeles County Department of Public Works, January 1997

The trend toward importation may be reversed in the future due to the 1996 closure of the BKK and Lopez Canyon Landfills and the prohibition on the disposal of non-inert solid waste at the Azusa Land Reclamation Landfill. While the impact of these closures was somewhat off-set by the reopening of the Sunshine Canyon Landfill, these events resulted in a net loss of nearly 16,000 tpd (about one fourth) of Los Angeles County's daily permitted capacity.

4.3.3 1995 Disposal Quantities and Capacity

4.3.3.1 Disposal Quantity Reporting System

On October 27, 1994, the CIWMB adopted regulations for the Disposal Reporting System pursuant to Sections 18800 through 18813 of the CCR and Section 41821.5 of the PRC. Effective January 1995, the regulations required all solid waste disposal facility operators/owners to provide information on a quarterly basis as to the quantities of waste disposed at their facilities by individual jurisdictions. Based on these regulations formulated by the CIWMB, the Disposal Reporting System provides the jurisdictions in Los Angeles County and the Los Angeles County Department of Public Works with a valuable tool for tracking the amount of solid waste disposed by all jurisdictions utilizing disposal facilities in the County.

The CIWMB regulations mandate that disposal facility operators, through quarterly surveys, obtain the jurisdictional origin of the waste being disposed at their facilities from haulers. The facility operators are required to submit this information to the County. The County in turn reports the information to each jurisdiction as to the amount of waste disposed at each disposal facility during the quarter.

To assist the local jurisdictions, solid waste haulers and facility operators in their compliance with these regulations, the Task Force drafted uniform Disposal Quantity Reporting Forms and distributed them to all cities, haulers, and facility operators in Los Angeles County for their review and comments. The Task Force finalized the Forms based on the comments received by mail and at a workshop attended by over 100 representatives of cities, haulers, and facility operators.

The data obtained from the Disposal Quantity Reporting system serves as the basis for all jurisdictions to measure their individual waste disposal reduction goals. This data was also used in the Los Angeles County CSE to measure 1995 disposal quantities (see Section 4.3.3.2) and project waste generation quantities for the 1996-2010 planning period (see Section 4.4).

4.3.3.2 1995 Disposal Quantities

The 1995 disposal quantities are based on Disposal Reporting System data for the period of January 1 through December 31, 1995. In 1995, the residents and businesses in Los Angeles County disposed of approximately 12.0 million tons of solid waste at existing permitted land disposal and transformation facilities located in and out of the County. The disposed quantity distribution among the various types of disposal facilities was as follows:

● In-County Class III Landfills	
- 11 major landfills	10,809,000 tons
- 6 minor landfills (including Two Harbors Landfill which closed in November 1995)	126,000 tons
● Transformation facilities	510,000 tons
● Exports to out-of-County Class III landfills	52,000 tons
● Unclassified landfills (inert waste only)	530,000 tons
Total Disposed	12,027,000 tons

It should be noted that the 1995 solid waste disposal quantities calculated above have been adjusted to account for the following:

- The in-County Class III landfill disposal quantities **exclude** approximately 712,000 tons of solid waste imported from Orange, Riverside, San Bernardino, San Diego, Ventura, and other Counties.
- The quantities disposed at transformation facilities **exclude** approximately 62,500 tons of solid waste imported from Orange, Riverside, San Bernardino, and San Diego Counties.

The above disposal quantities for solid waste generated in Los Angeles County translate into a 1995 average disposal rate of approximately 38,550 tons per day (six days/week) Countywide; 35,050 tons per day at Class III landfills; 1,630 tons per day at waste-to-energy facilities; 170 tons per day exported to out-of-County Class III landfills; and 1,670 tons per day at permitted unclassified landfills. Table 4-3 lists existing permitted landfills and transformation facilities and the quantities of solid waste disposed of originating in Los Angeles County. In addition, approximately 2,550 tons per day (six days/week) were imported to Los Angeles County for disposal at Class III landfills, unclassified landfills, and

transformation facilities. Please note that the quantities listed in Tables 4-2 and 4-3 may differ slightly from the above quantities due to rounding.

4.3.3.3 Remaining Permitted Disposal Capacity as of December 31, 1995

As part of the preparation of the CSE, a new study was conducted by the Department of Public Works to determine among other things, the remaining combined permitted disposal capacity, as of December 31, 1995. The study consisted of a written survey of all permitted solid waste disposal facilities in Los Angeles County, as well as review of site specific permit criteria established by local land use agencies, local enforcement agencies, California Regional Water Quality Control Boards and the South Coast Air Quality Management District. A summary of the data collected and existing permit limitations provided in Chapter 3, Table 3-2 through 3-21 are also shown in Table 4-3.

Based on the data provided in Table 4-3, as of December 31, 1995, the remaining permitted combined Class III disposal capacity for solid waste landfills and transformation facilities located in Los Angeles County are estimated as follows:

- Remaining permitted Class III landfill capacity = 102.3 million tons (approximately 187.9 million cubic yards).

The 102.2 million tons include 16.9 million tons of capacity at Sunshine Canyon Landfill which was fully permitted by not operational as of December 31, 1995.

- The remaining permitted unclassified landfill capacity = 53.1 million tons (35.4 million cubic yards)
- The remaining permitted transformation capacity = 1,977 tons per day.

The above transformation capacity is a 6-day/week average based on the Solid Waste Facility Permit limits of 2,800 tons per week for the Commerce Refuse-to-Energy Facility and 471,000 tons per year for the Southeast Resource Recovery Facility. It should also be noted that ash generated by transformation facilities is currently all being diverted.

4.4 DISPOSAL NEED PROJECTIONS (1996-2010)

Section 18755.3 (b) of Title 14 of the CCR requires a description of the anticipated disposal capacity needs for the 15-year planning period beginning with the year the CSE is prepared. Each jurisdiction was required to address this issue as part of the preparation of their Source Reduction and Recycling Element (SRRE); however, utilization of the solid waste quantity projection data contained in the jurisdictions' SRREs posed three problems.

- First, the SRRE projection data typically covered the planning period from 1990 to 2005, whereas the CSE's planning period would extend from 1996 to 2010 in the case of Los Angeles County. Therefore, additional projections would be required for the period from 2006 through 2010.
- Second, the local economy experienced a deep recession between 1990 and 1995, which significantly reduced solid waste generation and disposal quantities in Los Angeles County. For the most part, the local jurisdictions' SRREs had been completed or were nearing completion before the greatest impact of the recession was experienced. Thus, this factor was not taken into consideration in the projections contained in the SRREs.
- Third, the Countywide 1990 solid waste disposal quantities calculated based on data provided in all jurisdictions' SRREs are substantially less than the actual 1990 quantities as determined by the Task Force and reported to the California Integrated Waste Management Board in the report dated March 28, 1991, see Subsection 4.3. As such, the 1990 SRREs' data was not used to project the disposal capacity need through 2010.

Based on the foregoing, it was clear that new projections were needed which reflected more accurately the conditions existing at the time of preparation of the CSE and which better accounted for expected economic conditions in the future. The methodology selected for use in projecting solid waste generation and disposal for the 1996-2010 planning period is described below.

4.4.1 Base Year Waste Generation and Disposal

The Disposal Reporting System data and the monthly Solid Waste Management Fee (tipping fee) invoices submitted to the Department of Public Works by disposal facility operators provide accurate, up-to-date information on the total quantities of solid waste disposed at Los Angeles County facilities and on the quantities exported for disposal at out-of-County sites. Thus, the year for which the most current and complete data is available, 1995, was selected as the base year to be used in projecting waste quantities. The 1995 disposal quantities are based on Disposal Reporting System data from January 1, 1995, through December 31, 1995.

It should be noted that as of January 1997, the Disposal Reporting System data for the fourth quarter of 1996 was not available. As such, the solid waste generation and disposal need projections for Los Angeles County are based on the 1995 (the base year) data.

In order to determine the 1995 solid waste generation quantities, a diversion rate must be either quantified or assumed. Since there is currently no accurate method of measuring waste diversion, the total diversion amount was assumed as a percentage of total waste generated.

For 1995, the State-mandated diversion rate of 25 percent is assumed to have been met. The diversion rates are assumed to increase linearly in increments of 5 percent per year until reaching 50 percent by the year 2000. The diversion rate is assumed to remain at 50 percent beyond the year 2000.

4.4.2 Selection of Waste Generation Projection Methodology

A number of alternatives were considered for use in projecting countywide waste generation for the 1996-2010 planning period. These include use of the waste generation growth factors from each jurisdiction's SRRE, an adaptation of the CIWMB's Adjustment Methodology, and waste generation growth rates based on population growth projections.

The use of growth factors from each jurisdiction's SRRE were not selected because of the complexity involved in projecting waste generation for 89 individual jurisdictions. In many instances, the jurisdiction's projections were based on jurisdiction-specific population and economic growth projections which are either difficult to emulate or which may now be outdated.

Other methodologies, such as the projection of per capita waste generation in conjunction with population trends, were not used because of their failure to take into consideration the impact that changes in economic conditions has on waste generation. As discussed later in this Section, nearly three fifths of all solid waste generated in Los Angeles County can be attributed to economic activity (i.e., about 58 percent of all waste generated in the County was generated by commercial/industrial sources). Major changes in economic activity would have a significant impact on waste generation, however, population-based methods do not take into account this important factor. For example, linearly projecting the per capita waste generation data for 1990 through 1994 (a recessionary period) and using the projected per capita waste generation figures to project total waste generation, incorrectly assumes that the recession of the early 1990s would continue into the future without any economic recovery.

The use of growth rates based on population growth projections was considered for use since population projections are available from the State Department of Finance through the year 2010. However, projections based on population growth would not be able to account for economic downturns or a resumption of strong economic growth in the Los Angeles area in the next few years, which may have a significant effect on solid waste generation. Therefore, this alternative was not selected.

The projection methodology selected for use in the CSE consists of projecting solid waste generation using the CIWMB's Adjustment Methodology, which is described below.

4.4.2.1 Description of the Adjustment Methodology

Public Resources Code Section 41780.1(c) mandates that before measuring compliance with the solid waste diversion goals of 25 and 50 percent for the years 1995 and 2000, respectively, each jurisdiction must use a California Integrated Waste Management Board-approved standard adjustment methodology when calculating their maximum allowable disposal quantity for the year.

The CIWMB-approved Adjustment Methodology measures how increases or decreases in population, employment, inflation-adjustable taxes sales and special events (such as natural disasters) affect waste generation amounts. The Adjustment Methodology provides jurisdictions with a valuable tool for more accurately measuring their progress in reducing solid waste disposal, as well as for estimating future disposal quantities.

The adjustment formula uses a combination of ratios of base year to target year population, employment, and taxable sales to calculate target year solid waste generation, and maximum allowable disposal amounts based on established diversion goals. Since population, employment, and taxable sales influence residential waste generation rate differently than waste generated by non-residential sectors (i.e., commercial, industrial, etc.), the formula also provides correction factors to address these variances. As such, residential waste quantities are calculated separately from non-residential solid waste and then combined. The adjustment formula as adopted by the CIWMB is expressed as follows:

$$\text{Target Year Solid Waste Generation} = [(\text{B-Y RWG}) (\text{T-Y RAF})] + [(\text{B-Y NWG}) (\text{T-Y NWG})]$$

Where:

B-Y RWG = Base-Year Residential Waste Generation

B-Y NWG = Base-Year Non-residential Waste Generation

P = Population in base-year or target-year

E = Employment in base-year or target-year

T = Taxable Sales in base-year or target-year

T-Y RAF = Target-Year Residential Adjustment Factor

T-Y NWG = Target-Year Non-residential Adjustment Factor

T-Y RAF = $[(P_{t-y}/P_{b-y}) + \text{T-Y NAF}]/2$

T-Y NAF = $[(E_{t-y}/E_{b-y}) + (T_{t-y}/T_{b-y})]/2$

It can be seen that the adjustment formula predicts that increases/decreases in employment and taxable sales would have an impact on non-residential waste generation and, to a lesser extent, residential waste generation. Also, it can be seen that increases in population would have a direct impact on residential waste generation only. This does not mean however, that changes in population would have no effect on non-residential waste generation, since employment and taxable sales are intrinsically related to population.

It should be noted that when jurisdiction-specific data is not available, or when state-supplied data is not considered to be truly representative of a jurisdiction's situation, the method allows the jurisdiction to develop and use locally-developed alternative data or the use of countywide or other data which the jurisdiction deems representative of its situation.

The Adjustment Methodology was field-tested in spring 1994 by 47 jurisdictions in the State. Based on the test results and independent scientific review, the accuracy of the method is considered to be generally very good.

4.4.3 Waste Generation Projections

The Adjustment Methodology is considered to provide the most accurate representation of the effects of economic and population growth on waste generation. As previously indicated, the methodology requires the use of historical data on population, employment, taxable sales, and the Consumer Price Index. It also requires knowledge on the distribution of waste generation by sector (residential and non-residential) for the year to be projected. Therefore, the adaptation of this method for waste projection purposes would require projections of the above factors through the year 2010. Although no State projections are available through the year 2010 for Los Angeles County employment and taxable sales, and no data is available on the distribution of waste generation by sector for each year of the planning period, a number of reasonable assumptions can be made to enable the use of the CIWMB's Adjustment Methodology in projecting waste generation. It should be noted that although certain assumptions are necessary to enable the use of this Methodology, it still represents the best available method for projecting solid waste generation and the only one that takes into account projected changes in future economic conditions. The following is a discussion of the best available data through the year 2010, and how it was projected to estimate unavailable data for use in the CIWMB's Adjustment Methodology.

- **Distribution of Waste Generation by Sector**

No data is available on the distribution of waste generation by sector for 1994 and future years. However, the data provided in each jurisdiction's SRRE for the base year (1990), can be used to determine the 1990 countywide waste generation distribution by sector. For Los Angeles County, this distribution is as follows:

- 1990 Residential Waste Generation = 42 percent of total waste generation
- 1990 Non-residential Waste Generation = 58 percent of total waste generation

The 1990 distribution by sector was used to approximate the distribution for the years 1996 through 2010.

- **Population Projections**

State Department of Finance population projections are available for Los Angeles County for each year during the planning period. No additional projections or assumptions are necessary for use of this data in applying the Adjustment Methodology.

- **Employment**

The State Department of Finance (DoF), the Southern California Association of Governments (SCAG), University of California at Los Angeles (UCLA), the Federal Reserve Bank of San Francisco, the Los Angeles County Economic Development Corporation (LAEDC), and major financial institutions were contacted to determine whether projections for Los Angeles County employment were available through the year 2010. Three of these sources provided sufficient historical and projection data on employment that could be used to project employment through the 15-year planning period (1996 through 2010). These are:

- SCAG (SCAG Regional Comprehensive Plan, Chapter 3, adopted June 1994, updated June 1996)- included data on total Los Angeles County employment and total non-farm employment for 1995, 2000, 2005, and 2010;
- LAEDC (1996 estimate and 1997/2000 forecast, July 1996) - included historical/projection data on total non-farm employment in Los Angeles County for 1995-1997 and for the year 2000; and
- UCLA (UCLA - BFP Los Angeles County Forecast, August 1995) - included historical/projection data on total non-farm employment in Los Angeles County for 1995 through the year 2000.

Of the three sources, only SCAG provided projections for total Los Angeles County employment. However, comparison of total non-farm employment data from these sources shows their projections are nearly identical, with the projected growth rates from SCAG for total employment and total non-farm employment being marginally lower. Of all sources, the SCAG projections for total Los Angeles County employment were selected since they included forecasts through the end of the planning period.

- **Taxable Sales**

No taxable sales projections for Los Angeles County, through the year 2010, are available from the DoF, SCAG, UCLA, LAEDC, or other institutions contacted. Three of these sources provided sufficient historical and projection data on taxable

sales that could be used to project taxable sales through the 15-year planning period (1996 through 2010). These are:

- DoF (California Taxable Sales, May, 6, 1996)- included data on historical/projected total taxable sales in constant dollars in California for 1995-2005;
- LAEDC (1996 estimate and 1997/2000 forecast, July 1996) - included historical/projection data on total taxable retail sales in the metropolitan Los Angeles area for 1995-1997 and for the year 2000 which was corrected for the effects of inflation using the EDC consumer price index projection; and
- UCLA (UCLA - Business Forecasting Project, Los Angeles County Forecast, August 1995) - included historical/projection data on real taxable sales in Los Angeles County for 1995 through the year 2000.

The growth rates of the forecasted taxable sales data from these sources are similar through the year 2000 with the DoF data showing slightly lower growth rates. Of all sources, the DoF taxable sales projections were selected since they included more complete forecasts closest to the end of the planning period (i.e., data from the DoF is available through the year 2005, as opposed to the year 2000 for the others). The other forecasts, when projected, appeared to be much more optimistic regarding the future state of the economy.

Since Los Angeles County's economy represents a significant share of the total state economy (which means that trends at the County level closely follow trends at the State level), and since the Adjustment Methodology considers the relative changes in the factors used, rather than absolute amounts, it was determined that the changes in taxable sales projections at the State level would provide a good representation of the changes expected in Los Angeles County. The taxable sales amounts for the period 2006 through 2010 were estimated by continuing the trend exhibited by the State Department of Finance projections for the years 2003 through 2005. No adjustments for inflation are necessary since the State projections are available in terms of constant dollars (i.e., adjusted to consider effect of changes in projected cost of living).

Figure 4-1 shows the resulting projections for population, employment, and taxable sales. The shaded symbols are used to indicate data available from the sources identified above whereas unshaded symbols indicate figures projected based on the data available.

The resulting projections in waste generation, diversion and disposal for each year of the 15-year planning period are shown in Table 4-4. This table also provides the needed

Population, Employment, and Taxable Sales in Los Angeles County

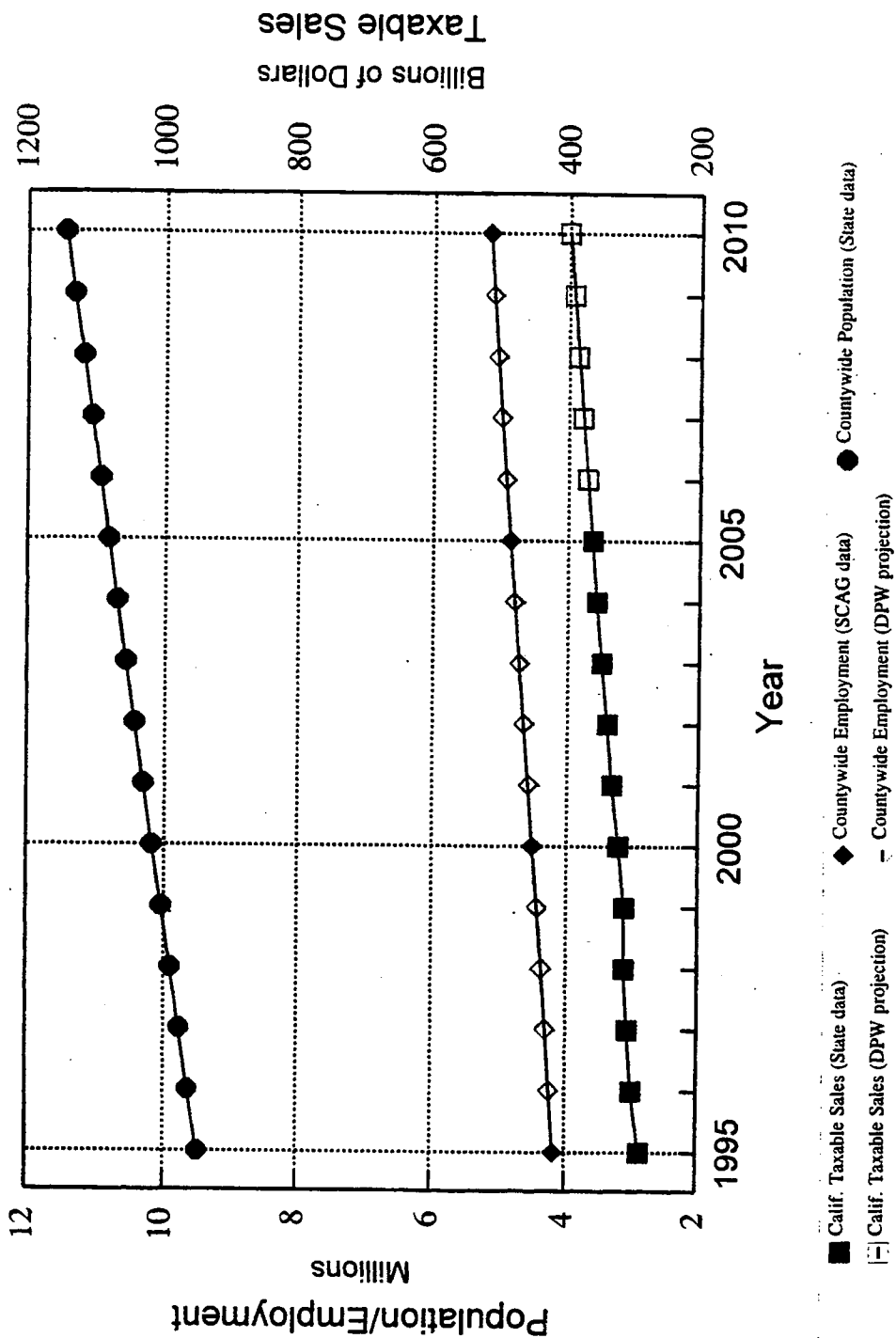


Figure 4-1

1. Shaded plot symbols indicate State or SCAG data.
2. Taxable sales figures are statewide and are expressed in billions of dollars.

TABLE 4-4
LOS ANGELES COUNTY SOLID WASTE DISPOSAL CAPACITY
REQUIREMENTS FOR THE 1996 - 2010 PLANNING PERIOD

A YEAR	B TOTAL GENERATION TONS	C PERCENT DIVERSION	D TOTAL DIVERSION TONS	E PROJECTED TRANSFORMATION & CLASS III LANDFILL DISPOSAL (TONS)	F AVAILABLE TRANSFORMATION CAPACITY TONS	G		H		I		J
						ANNUAL		ANNUAL		CUMULATIVE (YEAR'S END)		
						TONS	CUBIC YARDS	TONS	CUBIC YARDS	TONS	CUBIC YARDS	
1996	15,329,359	25	3,832,340	11,497,000	616,800	---	---	---	---	---	---	---
1996	15,726,813	30	4,716,044	10,948,503	616,800	10,331,703	17,219,505	10,331,703	17,219,505	10,331,703	17,219,505	17,219,505
1997	16,002,526	35	5,600,984	10,401,642	616,800	9,784,842	16,308,070	20,116,545	16,308,070	20,116,545	33,527,575	33,527,575
1998	16,262,256	40	6,504,902	9,757,354	616,800	9,140,554	15,234,256	29,257,099	15,234,256	29,257,099	48,761,831	48,761,831
1999	16,405,678	45	7,382,555	9,023,123	616,800	8,406,323	14,010,538	37,663,421	14,010,538	37,663,421	62,772,369	62,772,369
2000	16,742,087	50	8,371,044	8,371,044	616,800	7,754,244	12,923,739	45,417,665	12,923,739	45,417,665	75,696,108	75,696,108
2001	17,102,214	50	8,551,107	8,551,107	616,800	7,934,307	13,223,845	53,351,972	13,223,845	53,351,972	88,919,953	88,919,953
2002	17,407,134	50	8,703,567	8,703,567	616,800	8,086,767	13,477,945	61,438,739	13,477,945	61,438,739	102,397,898	102,397,898
2003	17,733,877	50	8,866,939	8,866,939	616,800	8,250,139	13,750,231	69,688,877	13,750,231	69,688,877	116,148,129	116,148,129
2004	18,041,168	50	9,020,584	9,020,584	616,800	8,403,784	14,006,307	78,092,661	14,006,307	78,092,661	130,154,436	130,154,436
2005	18,329,961	50	9,164,981	9,164,981	616,800	8,548,181	14,246,968	86,640,842	14,246,968	86,640,842	144,401,403	144,401,403
2006	18,623,831	50	9,311,916	9,311,916	616,800	8,695,116	14,491,859	95,335,957	14,491,859	95,335,957	158,893,262	158,893,262
2007	18,915,815	50	9,457,908	9,457,908	616,800	8,841,108	14,735,179	104,177,065	14,735,179	104,177,065	173,628,442	173,628,442
2008	19,205,724	50	9,602,862	9,602,862	616,800	8,986,062	14,976,770	113,163,127	14,976,770	113,163,127	188,605,212	188,605,212
2009	19,493,143	50	9,746,572	9,746,572	616,800	9,129,772	15,216,286	122,292,898	15,216,286	122,292,898	203,821,497	203,821,497
2010	19,777,664	50	9,888,832	9,888,832	616,800	9,272,032	15,453,387	131,564,930	15,453,387	131,564,930	219,274,884	219,274,884

NOTES:

- The Waste Generation quantities (Column B) were estimated using the CIWMB's Adjustment Methodology, utilizing population and economic projections available from the State Department of Finance and the Southern California Association of Governments, using 1995 as the base year.
- Waste generation estimate for 1995 is based on actual transformation and Class III landfill disposal by jurisdictions in Los Angeles County for the 1995 Calendar Year and assumes a 25 percent diversion rate.
- The 1995 transformation and Class III landfill disposal quantity (Column E) is based on actual tonnages reported by permitted solid waste disposal facility operators and export quantities reported by other counties to the Los Angeles County Department of Public Works as part of the 1995 Disposal Quantity Reporting Data.
- The Cumulative Disposal Need (Columns I and J) listed is the sum of the projected Class III landfill disposal needs of jurisdictions in Los Angeles County, beginning January 1996 through the end of the year listed.
- The quantities expressed in Columns H and J were obtained from Columns G and I, respectively, using a conversion factor of 1,200 lb/cy.

Source: Los Angeles County Department Of Public Works, January 1997

Class III landfill disposal capacity for each year of the planning period assuming no additional transformation capacity will be developed during the 15-year planning period. Additionally, the analysis assumes that Los Angeles County will be responsible for management of solid waste generated in Los Angeles County. As such, the analysis does not take credit for that portion of solid waste that is exported out of Los Angeles County nor does it consider any capacity for imported solid waste to Los Angeles County. The data provided in Table 4-4 excludes quantities of inert solid waste disposed of at unclassified landfills for the reason listed below.

- The trend toward increased recycling of construction and demolition waste has and will continue to result in substantial reductions in the quantities of inert waste in need of landfill disposal.
- Higher tipping fees at Class III landfills compared to tipping fees at unclassified landfills have and will continue to reduce/eliminate disposal of inert waste at Class III landfills.
- Based on the study conducted as part of the preparation of the CSE, the remaining permitted combined unclassified landfill capacity as of January 1, 1996, is estimated at approximately 53.1 million tons (35.4 million cubic yards). Table 4-3 lists permitted unclassified landfills in Los Angeles County existing in 1995, and the quantities and rates of inert waste disposed at these facilities in 1995. At the 1995 average rate of disposal of 1,770 tons per day (six days/week) at **permitted** unclassified landfills, this capacity would be mathematically exhausted in approximately 96 years. Additionally, in 1996 the Nu-Way Live Oak Landfill became permitted in 1996, further increasing the permitted capacity available for disposal of inert waste. As such, it is believed (as it was believed in 1990), that Los Angeles County currently has adequate permitted unclassified landfill disposal capacity, and that no inert waste capacity crisis currently exists. Based on the foregoing, the CSE's projected disposal capacity need for each year of the 15-year planning period exclude the need for unclassified landfills.

4.5 ADEQUACY OF EXISTING REMAINING PERMITTED DISPOSAL CAPACITY

4.5.1 Transformation Facilities

As previously indicated, currently two waste-to-energy facilities with a combined permitted daily capacity of 1,977 tons (six days/week) operate in Los Angeles County. Based on information provided in Chapter 3, it is expected that these two facilities will operate at their current permitted daily capacity during the planning period 1996-2010. Currently, owners/operators of these facilities have indicated that there are no plans for any increase in permitted daily capacity of these facilities even though waste-to-energy facilities conserve the greatest amount of landfill capacity.

The successful operation of the two existing transformation facilities in Los Angeles County have proven waste-to-energy transformation technology to be commercially, technically, and environmentally feasible while at the same time meeting stringent air quality standards. However, the development of additional transformation facilities in Los Angeles County during the 1996-2010 planning period is unlikely due to the high capital costs involved in developing these facilities, uncertainty caused by deregulation of the energy industry, the current low prices for power, and the unavailability of power contracts (see Chapters 3 and 5 for additional discussions regarding transformation facilities and technologies).

As such, the CSE assumes that the two existing waste-to-energy facilities will provide approximately 1,977 tons per day, six days per week (their combined maximum permitted daily capacity, equivalent to 616,800 tons per year), of the Los Angeles County permitted daily disposal capacity needs through the 15-year planning period. The remaining permitted disposal needs must be handled by the in-County Class III landfills and/or out-of-County solid waste disposal facilities.

4.5.2 Class III Landfills

As indicated in Section 4.3, the remaining permitted Class III capacity in this County as of December 31, 1995, was estimated at 102.3 million tons (187.9 million cubic yards) (Table 4-3). This included the Sunshine Canyon Landfill's capacity of 16.9 million tons which was fully permitted but not yet operational as of January 1996. As shown in Table 4-4, the cumulative permitted Class III landfill disposal capacity needs of 104.2 million tons will exceed the existing remaining permitted Class III landfill capacity by the year 2007. However, as indicated below, this simple comparison does not accurately predict when a shortfall in daily permitted disposal capacity will be experienced. Rather, one must look at the **maximum permitted daily capacity** available and compare it with the County's daily disposal requirements, with full consideration of the facilities' constraints, to determine when the shortfall in permitted daily capacity and permitted landfill capacity will occur.

Additionally, waste generation and disposal quantities must be adjusted to account for waste imported from adjacent counties, waste exports to out-of-County facilities, and waste generated as a result of natural disasters together with the time necessary to develop additional permitted daily capacity and permitted landfill capacity in order to be able to project as to when a **Disposal Capacity Shortfall** may occur.

4.5.2.1 Understanding the Disposal Capacity Shortfall Analysis

As indicated in Section 4.3, the Los Angeles County Department of Public Works has established a process for tracking solid waste disposal quantities at landfills and transformation facilities which is based on the Solid Waste Disposal Quantity Reporting System and the monthly Solid Waste Management Fee invoices submitted to the Department of Public Works by landfill and transformation facility operators. Based on this information

and that available by other regulatory agencies (including Disposal Reporting System data from counties receiving Los Angeles County's waste exports), the Department of Public Works has a continuing process of projecting waste disposal demand and available capacity.

The dynamics of the existing solid waste management system in Los Angeles County also result in the projection process being very dynamic. Consequently, projections of waste disposal demand and available capacity are based on reasonable assumptions that reflect past experience, use a conservative approach, and project various scenarios.

4.5.2.2 Definition of Disposal Capacity Shortfall

"**Disposal Capacity Shortfall**" is defined as the amount of solid waste in need of disposal which exceeds the daily permitted capacity.

The Disposal Capacity Shortfall Analysis allows a comparison of the projected date of daily permitted disposal capacity shortfall with the date additional daily capacity can be permitted. Past experience has shown that it takes three to seven years (or more) to permit an expansion of an existing Class III landfill and between seven and ten years (or more) to site a new Class III landfill facility. Additionally, as discussed above in Subsection 4.5.1 and in Chapter 5, the development of new transformation facilities is a remote possibility at this time. Thus, when a shortfall in **permitted daily capacity** at Class III landfills is predicted to occur in less time than it takes to permit new capacity, immediate action is necessary to ensure disposal services continue to be provided to residents and businesses without interruption and at reasonable cost.

4.5.2.3 Disposal Facility Restrictions

Factors which severely hinder the accessibility of available Class III landfill permitted disposal capacity include: expiration of the Land Use Permit, Waste Discharge Requirements Permit, Solid Waste Facility Permit, air quality permits; restrictions on the acceptance of waste generated outside jurisdictional and/or watershed boundaries; permit restrictions on the amount of waste that can be accepted daily and/or weekly; geographic barriers; and/or limitations on the amount of waste that can be handled by a facility on a daily basis due to the lack of manpower and equipment.

One of the critical limiting factors is the jurisdictional restrictions on waste disposal. For example, as discussed in Chapter 3 and further summarized in Table 4-3, Savage Canyon (Whittier) Landfill can only receive solid waste generated within the City of Whittier; Burbank Landfill only accepts waste generated within the City of Burbank, which is collected by City crews; ; Puente Hills and Spadra Landfills are prohibited from receiving any waste originating from the City of Los Angeles and Orange County. Also, Calabasas and Scholl Canyon Landfills only accept solid waste generated within their defined watersheds, and Brand Park and San Clemente Landfills are not open to the public.

Other critical factors which greatly impact a landfill operation are the daily quantity of solid waste that a disposal facility can accept (permitted daily capacity), and permitted disposal capacity as established by local jurisdictions/regulatory agencies. For example, as listed in Chapter 3, Table 3-2 through 3-25, by the year 2000, five major landfills could be closed due to capacity limitations, expiration of land use permit, other operational permits, and/or Court decisions. Under these circumstances, if no expansions of existing facilities occur or no new disposal facilities are developed, the County will experience shortfalls in permitted daily disposal capacity.

4.5.2.4 Disposal Capacity Shortfall Analysis

The disposal capacity shortfall analysis is presented in Tables 4-5 through 4-14. The analysis takes into consideration factors listed in Subsection 4.5.2.3 and considers disposal capacity needs for the County as a whole. The analysis provided in the CSE differs from previous analyses by the Los Angeles County Department of Public Works and the County Sanitation Districts of Los Angeles County by considering total disposal capacity at all disposal facilities Countywide. Past analyses:

- a) Excluded minor Class III landfills since, as stated previously, their disposal capacity is relatively small compared to major Class III landfills, their use is restricted to serving only the host jurisdictions' disposal needs and/or is limited due to geographic isolation.
- b) Differentiated between the Metropolitan area and the Antelope Valley area needs. This differentiation was made due to the fact that, in the past, hauling costs traditionally made it economically unfeasible for waste haulers to transport waste from the metropolitan area to the Antelope Valley area. Also, the Antelope Valley and Lancaster Landfills have been able to provide adequate disposal capacity for the needs of the Antelope Valley. However, it is expected that as landfill capacity available in the metropolitan area continues to be exhausted and as disposal costs rise in this area, the geographic separation of the Antelope Valley area will become a less important factor in determining how much solid waste from the metropolitan area is disposed at Antelope Valley landfills. Thus, the current disposal capacity shortfall analysis incorporates available capacity at all permitted disposal facilities in Los Angeles County including all minor Class III landfills and the two landfills in the Antelope Valley area.
- c) Not accounted for import/export quantities of waste, since those quantities were not considered significant in the past, were thought to be equivalent (i.e., they canceled each other), and there was no accurate means of quantifying them.

The disposal capacity shortfall analysis considers five scenarios, which are briefly described below and are discussed in detail later in this section and in Section 4.6.3:

- Scenario A. This scenario assumes that all Los Angeles County solid waste that must be disposed of will be managed at existing in-County permitted disposal facilities during the 15-year planning period. The analysis also assumes that no new transformation facilities, no new landfills, and no expansions of existing landfills will become operational within Los Angeles County during the planning period.
- Scenario B. This scenario is similar to Scenario A, except that it considers the potential disposal capacity savings that may be realized at in-County landfills through the use of alternative daily cover materials.
- Scenario C. This scenario considers use of existing in-County permitted disposal facilities and utilization of up to 6,000 tons per day of out-of-Los Angeles County landfills. The analysis also assumes that no new transformation facilities, no new landfills, and no expansions of existing landfills will become operational within Los Angeles County during the 15-year planning period.
- Scenario D. This scenario assumes that all Los Angeles County solid waste that must be disposed of will be managed at existing in-County permitted disposal facilities during the 15-year planning period. Additionally, the scenario assumes that all proposed expansions of existing in-County landfills, as identified in Chapter 7, will be successfully permitted and developed to their full capacity, as proposed. This scenario also assumes that no new landfills will become operational during the 15-year planning period.
- Scenario E. This scenario is similar to Scenario D, except that it assumes that all proposed new in-County landfills as identified in Chapter 7, in addition to the expansions of existing landfills, will be successfully permitted and developed to their full capacity, as proposed.

Scenarios A, B, and C are discussed in detail below and Scenarios D and E are discussed in detail in Section 4.6.3.

- **Scenario A -- No New Landfills or Expansion of Existing Landfills During the Planning Period**

Scenario A, Table 4-5 provides a disposal capacity shortfall analysis for Los Angeles County based on the projected permitted Class III landfill capacity needs as shown in Table 4-4. This scenario assumes that all Los Angeles County solid waste that must be disposed of will be managed at existing in-County permitted disposal facilities during the 15-year planning period. The analysis also assumes that no new

TABLE 4-5
SCENARIO A
DISPOSAL CAPACITY SHORTFALL ANALYSIS
ASSUMING NO NEW OR EXPANDED LANDFILLS DURING THE PLANNING PERIOD
Based on January 1, 1995 through December 31, 1995 six-day average tonnages and
assuming AB 939 diversion is fully implemented
Los Angeles County Countywide Sliding Element

Year	Waste Generation Rate (tpd-5)	Percent Diversion	Total Disposal Need (tpd-5)	Maximum Daily Transformation Capacity (tpd-5)	Landfill Disposal Need (tpd-5)	Remaining permitted landfill capacity at year's end, Million Tons																	Daily Disposal Capacity Shortfall (Excess) (tpd-5)
						1 Antelope Valley	2 Azusa	3 BKK	4 Bradley	5 Brand Park	6 Burbank	7 Cabasas	8 Chiquita	9 Lancaster	10 Lopez	11 Pebble Beach	12 Puenite Hills	13 San Clemente	14 Scholl	15 Spadra	16 Sunshine	17 Whittier	
1995	49,133	25.00%	36,849			750	6,000	12,000	6,000	28	132	2,159	1,389	1,000	3,333	15	12,000	2	1,448	2,500	6,000	232	
1996	50,405	30.00%	35,285	1,977	33,308	2.1	3.0	2.7	7.6	0.59	6.4	15	1.9	0.47	0.5	0.042	29.3	0.048	10.91	2.1	16.9	2.7	
1997	51,290	35.00%	33,339	1,977	31,362	1.400	6,000	12,000	6,000	27	129	2,107	1,389	1,000	3,333	15	12,000	2.0	1,413	2,500	6,000	227	
1998	52,123	40.00%	31,274	1,977	29,297	1.3	P	P	5.8	0.56	6.3	14.4	1.5	0.15	P	0.037	25.6	0.047	10.5	1.3	16.0	2.6	
1999	52,592	45.00%	28,920	1,977	26,943	0.8	1.400	1.400	6,000	25	121	1,970	1,389	P	C	0.032	21.8	0.047	10.0	0.6	14.1	2.5	
2000	53,561	50.00%	26,830	1,977	24,853	0.4	1.400	1.400	0.1	0.56	6.2	12.6	1.25	0.023	14.4	0.046	18.1	1.8	1,266	9.6	12.2	2.5	
2001	54,515	50.00%	27,407	1,977	25,430	0.4	1.400	1.400	0.1	0.56	6.2	12.6	1.25	0.023	14.4	0.046	18.1	1.8	1,266	9.6	12.2	2.5	
2002	55,792	50.00%	27,886	1,977	25,919	0.5	1.400	1.400	0.1	0.56	6.2	12.6	1.25	0.023	14.4	0.046	18.1	1.8	1,266	9.6	12.2	2.5	
2003	56,839	50.00%	28,420	1,977	26,443	0.5	1.400	1.400	0.1	0.56	6.2	12.6	1.25	0.023	14.4	0.046	18.1	1.8	1,266	9.6	12.2	2.5	
2004	57,824	50.00%	28,912	1,977	26,936	0.5	1.400	1.400	0.1	0.56	6.2	12.6	1.25	0.023	14.4	0.046	18.1	1.8	1,266	9.6	12.2	2.5	
2005	58,750	50.00%	29,375	1,977	27,398	0.5	1.400	1.400	0.1	0.56	6.2	12.6	1.25	0.023	14.4	0.046	18.1	1.8	1,266	9.6	12.2	2.5	
2006	59,692	50.00%	29,846	1,977	27,869	0.5	1.400	1.400	0.1	0.56	6.2	12.6	1.25	0.023	14.4	0.046	18.1	1.8	1,266	9.6	12.2	2.5	
2007	60,628	50.00%	30,314	1,977	28,337	0.5	1.400	1.400	0.1	0.56	6.2	12.6	1.25	0.023	14.4	0.046	18.1	1.8	1,266	9.6	12.2	2.5	
2008	61,567	50.00%	30,778	1,977	28,801	0.5	1.400	1.400	0.1	0.56	6.2	12.6	1.25	0.023	14.4	0.046	18.1	1.8	1,266	9.6	12.2	2.5	
2009	62,478	50.00%	31,239	1,977	29,262	0.48	1.400	1.400	0.1	0.56	6.2	12.6	1.25	0.023	14.4	0.046	18.1	1.8	1,266	9.6	12.2	2.5	
2010	63,390	50.00%	31,695	1,977	29,718	0.47	1.400	1.400	0.1	0.56	6.2	12.6	1.25	0.023	14.4	0.046	18.1	1.8	1,266	9.6	12.2	2.5	

ASSUMPTIONS:
 1. The Waste Generation Rate was estimated using the CWMAB's adjustment methodology, utilizing population and economic projections available from the State Department of Finance and the Southern California Association of Governments.
 2. Diversion Rate 25% in 1995, increase to 50% by 2000 and thereafter.
 3. Expected Daily Tonnage Rates are based on permitted daily capacity for the Antelope Valley, Azusa, BKK, Lancaster, Lopez Canyon, Pebble Beach, Puente Hills, Spadra, and Sunshine landfills. The expected daily tonnage rate for Brand Park, Bradley, Burbank, Cabasas, Chiquita, San Clemente, Scholl, and Whittier (Savage) landfills are based on the average daily tonnages for the period of 1/1/95 to 12/31/95.
 4. On 10/3/96, the Azusa Land Reclamation Landfill ceased accepting non-hazardous solid waste for disposal, but continues to accept inert waste.
 5. "tpd-5": tons per day, 5 day per week average.

LEGEND:
 C - Closed due to exhausted capacity
 L - Does not accept waste from the city of Los Angeles and Orange County
 P - Closed due to Permit Expiration
 R - Restricted Waste
 CWMAB - County Integrated Waste Management Board

transformation facilities, no new landfills, and no expansions of existing landfills will become operational within Los Angeles County during the 15-year planning period. Additionally, the analysis assumes full implementation of AB 939 waste diversion programs, and the achievement of the waste diversion mandates of 25 percent by 1995 and 50 percent by the year 2000 and thereafter through the year 2010. This last assumption is an important one whose implications must be clearly understood in the context of solid waste management planning. Jurisdictions in Los Angeles County are fully committed to achieving the 50 percent diversion goal by the year 2000. However, it is imperative to recognize the difficulty of achieving this goal. To date, no major city in the country has been documented to have achieved a diversion rate of 50 percent. Therefore, in planning solid waste disposal capacity, the goal should also be to provide reserve capacity to handle unanticipated disposal demands (which also include capacity to accommodate disaster-related waste).

Based on existing Class III landfills' permitted daily capacity (six days per week), average disposal rate in 1995 and factors discussed in Subsection 4.5.2.3, Table 4-5 (columns 1 through 17) lists how solid waste tonnages are distributed to each one of the 17 Class III landfills and the transformation facilities existing in 1995. The remaining permitted capacity at the end of each year of the planning period for each one of the Class III landfills is also shown in Columns 1 through 17 of Table 4-5. The 1995 remaining permitted capacity is based on data presented in Table 4-3. The last column in Table 4-5 shows projected daily disposal capacity shortfall (excess capacity is shown in parentheses). Table 4-6 provides a summary of Table 4-5, by excluding Columns 1 through 17.

The disposal capacity shortfall analysis as provided in Scenario A, Table 4-5, and Table 4-6, Summary, considers full use of the permitted capacity available at the recently approved expansion of the Sunshine Canyon Landfill for the second half of 1996 and thereafter.

Based on the Scenario A, Table 4-5 (or Table 4-6, Summary) analysis, a daily disposal capacity shortfall of approximately 2,000 tons per day (six days per week) will be experienced by 2000. After the year 2000, the shortfall increases gradually to over 4,800 tons per day (six days per week) by the year 2003. The shortfall would increase to over 17,000 tons per day in the year 2004 due to the expiration of the Puente Hills Landfill conditional use permit in November 2003.

It is important to note that reserve (excess) daily capacity of 22,200 tons in 1996 (shown in the right column of Table 4-5 and Table 4-6, Summary, as a number in parenthesis) would decrease to under 3,000 tons per day (six days per week) by 1997, which is substantially less than the minimum reserve daily capacity of 12,000 tons per day (equivalent to the largest single permitted facility) which is necessary to maintain a reliable and economical solid waste disposal system. It is also important

**TABLE 4-6, SUMMARY
SCENARIO A
DISPOSAL CAPACITY SHORTFALL ANALYSIS
ASSUMING NO NEW OR EXPANDED LANDFILLS DURING THE PLANNING PERIOD
Based on January 1, 1995 through December 31, 1995 six-day average tonnages and
assuming AB 939 diversion is fully implemented
Los Angeles County Countywide Siting Element**

Year	Waste Generation Rate	Percent Diversion	Total Disposal Need	Maximum Daily Transformation Capacity	Landfill Disposal Need	Daily Disposal Capacity Shortfall (Excess)
	(tpd-6)		(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)
1995	49,133	25.00%	36,849			
1996	50,406	30.00%	35,285	1,977	33,308	(22,234)
1997	51,290	35.00%	33,339	1,977	31,362	(2,720)
1998	52,123	40.00%	31,274	1,977	29,297	(2,269)
1999	52,582	45.00%	28,920	1,977	26,943	(1,972)
2000	53,661	50.00%	26,830	1,977	24,853	2,042
2001	54,815	50.00%	27,407	1,977	25,430	3,946
2002	55,792	50.00%	27,896	1,977	25,919	4,372
2003	56,839	50.00%	28,420	1,977	26,443	4,830
2004	57,824	50.00%	28,912	1,977	26,935	17,260
2005	58,750	50.00%	29,375	1,977	27,398	17,679
2006	59,692	50.00%	29,846	1,977	27,869	24,090
2007	60,628	50.00%	30,314	1,977	28,337	24,499
2008	61,557	50.00%	30,778	1,977	28,801	24,905
2009	62,478	50.00%	31,239	1,977	29,262	25,307
2010	63,390	50.00%	31,695	1,977	29,718	25,705

ASSUMPTIONS:

- 1.- The waste Generation Rate was estimated using the CIWMB's adjustment methodology, utilizing population and economic projections available from the State Department of Finance and the Southern California Association of Governments.
- 2.- Diversion Rate 25% in 1995, increase to 50% by 2000 and thereafter.

NOTES:

- 1.- The 1995 Disposal Tonnage Rates are based on permitted daily capacity and on the average daily tonnages for the period of 1/1/95 to 12/31/95.
- 2.- "tpd-6": tons per day, 6 day per week average.

Source: Los Angeles County Department of Public Works, February 1997.

to note that in the event that the Puente Hills and/or Sunshine Canyon Landfill expansions (with maximum permitted daily capacities of 12,000 and 6,000 tons per day-six days per week, respectively) had not occurred, a disposal capacity shortfall would have been expected in Los Angeles County as early as 1997.

- **Scenario B -- No New Landfills or Expansion of Existing Landfills During the Planning Period and Potential Alternative Daily Cover Capacity Savings**

Scenario B assumes that all Los Angeles County solid waste that must be disposed of will be managed at existing in-County permitted disposal facilities during the 15-year planning period, and that no new transformation facilities, no new landfills, and no expansions of existing landfills will become operational within Los Angeles County during this planning period. Additionally, the analysis considers disposal capacity savings that may be realized at in-County landfills through the use of alternative daily cover materials such as tarps and foams. The analysis is similar to Scenario A, and presented in Tables 4-7 and 4-8, Summary, in the same format as Tables 4-5 and 4-6, Summary, respectively.

The analysis assumes a 10 percent increase (see Chapter 5, Section 5.4.1 for detailed discussion) in the remaining permitted disposal capacity, beginning January 1, 1998, at all landfills in operation in Los Angeles County (except the Calabasas, Puente Hills, Scholl Canyon and Spadra Landfills, where green waste is currently being used as an alternative daily cover material). However, it should be noted that actual savings may be less than those assumed under this scenario, since currently the Antelope Valley, Bradley, Lancaster, and Savage Canyon landfills are using some sort of alternative daily cover material. Additionally, the use of alternative daily cover materials will provide no benefits for those landfills whose remaining permitted disposal capacity is controlled by the expiration of their land use permits and/or which would be expected to close before 1998 if no expansions are permitted. That is the case of the Chiquita Canyon and Puente Hills Landfills, whose land use permits will expire in November 1997 and November 2003, respectively.

Furthermore, the analysis recognizes that a majority of the permitted Class III landfills in Los Angeles County have permit limitations on the quantities of solid waste they can receive on a daily or weekly basis. Therefore, while the use of alternative daily cover materials will increase available disposal capacity in the long term, it would not cause an increase in the permitted daily disposal capacity.

The remaining permitted disposal capacities at the Calabasas, Puente Hills, Scholl Canyon and Spadra Landfills were not increased since those facilities currently have approved green waste alternative daily cover programs. These facilities are assumed to continue this program during the planning period. Due to the current lack of

adequate composting capacity within Los Angeles County and the need to create markets compost materials, the use of tarps and foams as alternative daily cover materials in-lieu-of green waste at these facilities may result in the disposal of some of the green waste thereby offsetting any potential capacity savings.

Table 4-7 and Table 4-8, Summary, present a disposal capacity shortfall analysis based on this scenario. The analysis considers achievement of the AB 939 waste diversion mandates of 25 percent by 1995 and 50 percent by the year 2000 and thereafter through the year 2010. This analysis also considers use of permitted available capacity at Sunshine Canyon Landfill expansion for the second half of 1996 and thereafter.

Based on this analysis, a permitted daily capacity shortfall of approximately 2,000 tons per day (six days per week) would occur by the year 2000. The shortfall would increase to 4,800 tons per day (six days per week) by 2003, and to over 17,000 tons per day by 2004, due to the November 2003 expiration of the conditional use permit for the Puente Hills Landfill. It should also be noted that under this scenario reserve daily capacity would fall below 3,000 tons per day (six days per week) by 1997.

A comparison of Table 4-5 and Table 4-7 indicates no major change between Scenarios A and B. The reason for this, as discussed above, is that the use of alternative daily cover materials will increase available disposal capacity in the long term, but it will not cause an increase in the permitted daily disposal capacity due to existing landfill waste shed boundaries, daily capacity limits, and other restrictions imposed by the facility owners/operators.

- **Scenario C -- No New Landfills or Expansion of Existing Landfills During the Planning Period and Utilization of Out-of-County Disposal Capacity**

Scenario C considers use of existing in-County permitted disposal facilities and utilization of up to 6,000 tons per day of out-of-Los Angeles County landfills. The analysis also assumes that no new transformation facilities, no new landfills, and no expansions of existing landfills will become operational within Los Angeles County during the 15-year planning period. The analysis is similar to Scenario A, and presented in Tables 4-9 and 4-10, Summary, in the same format as Tables 4-5 and 4-6, Summary, respectively. The analysis makes the following assumptions with respect to solid waste imports and exports:

TABLE 4.7
SCENARIO B
DISPOSAL CAPACITY SHORTFALL ANALYSIS
ASSUMING NO NEW OR EXPANDED IN-COUNTY LANDFILLS AND
ALTERNATIVE DAILY COVER CAPACITY SAVINGS DURING THE PLANNING PERIOD
Based on January 1, 1985 through December 31, 1995 six-day average tonnages and
assuming AB 939 diversion is fully implemented
Los Angeles County Countywide Siting Element

Year	Waste Generation Rate (tpd-6)	Percent Diversion	Total Disposal Need (tpd-6)	Maximum Daily Transformation Capacity (tpd-6)	Landfill Disposal Need (tpd-6)	Remaining permitted landfill capacity at year's end, Million Tons																Daily Disposal Capacity Shortfall (Excess) (tpd-6)		
						1 Antelope Valley	2 Azusa	3 BKK	4 Bradley	5 Brand Park	6 Burbank	7 Calabasas	8 Chiquita	9 Lancaster	10 Lopez	11 Pebble Beach	12 Puebla Hills	13 San Clemente	14 Scholl	15 Spadra	16 Sunshine		17 Whittier	
1995	49,133	25.00%	36,849			750	6,000	12,000	6,000	28	132	2,159	1,389	1,000	3,333	15	12,000	29.3	0.048	10.91	2.1	16.9	2.7	
1996	50,405	30.00%	35,285			2.1	3.0	2.7	7.6	0.59	6.4	15	1.9	0.47	0.5	0.042	29.3	0.048	10.91	2.1	16.9	2.7		
1997	51,290	35.00%	33,339			1.400	6,000	12,000	6,000	27	129	2,107	1,389	1,000	3,333	15	12,000	29.3	0.048	10.91	2.1	16.9	2.7	
1998	52,123	40.00%	31,274			1.7	P	P	5.8	0.58	6.3	14.4	1.5	0.15	P	0.037	25.6	0.047	10.5	1.3	16.0	2.6		
1999	52,562	45.00%	28,920			0.9	1.400	1.400	2.4	0.62	6.9	13.2	1.389	P	C	0.031	18.1	0.051	9.6	C	13.6	2.7		
2000	53,651	50.00%	26,830			0.5	1.400	1.400	0.5	0.62	6.8	12.6	1.288	1.7	1.228	0.026	14.4	0.050	8.2	11.8	2.6			
2001	54,815	50.00%	27,407			0.1	C	C	0.61	0.61	6.8	12.0	1.288	1.7	1.228	0.022	10.6	0.050	8.9	12.28	6,000	201	2.6	
2002	55,792	50.00%	27,896						0.60	0.60	6.8	11.4	1.288	1.7	1.228	0.017	9.9	0.048	8.5	8.0	2.5			
2003	56,839	50.00%	28,420						0.59	0.59	6.7	10.8	1.288	1.7	1.228	0.012	3.1	0.048	8.1	6.1	2.5			
2004	57,824	50.00%	28,912						0.58	0.58	6.7	9.6	1.288	1.7	1.228	0.008	12,000	0.048	7.7	4.3	2.4			
2005	58,750	50.00%	29,375						0.58	0.58	6.7	9.6	1.288	1.7	1.228	0.003	0.048	0.048	7.2	2.4	2.4			
2006	59,692	50.00%	29,846						0.57	0.57	6.6	9.0	1.288	1.7	1.228	0.003	0.047	0.047	6.8	0.5	2.3			
2007	60,628	50.00%	30,314						0.56	0.56	6.6	8.3	1.288	1.7	1.228	0.003	0.046	0.046	6.4	0.5	2.2			
2008	61,557	50.00%	30,778						0.55	0.55	6.5	7.7	1.288	1.7	1.228	0.003	0.046	0.046	6.0	0.5	2.1			
2009	62,478	50.00%	31,239						0.55	0.55	6.5	7.0	1.288	1.7	1.228	0.003	0.045	0.045	5.5	0.5	2.0			
2010	63,390	50.00%	31,695						0.54	0.54	6.5	6.4	1.288	1.7	1.228	0.003	0.045	0.045	5.1	0.5	2.0			
									0.53	0.53	6.4	5.7	1.288	1.7	1.228	0.003	0.044	0.044	4.6	0.5	1.9			

ASSUMPTIONS:

- The Waste Generation Rate was estimated using the CMMMB's adjustment methodology, utilizing population and economic projections available from the State Department of Finance and the Southern California Association of Governments.
- Diversion Rate 25% in 1985, increase to 50% by 2000 and thereafter.
- Expected Daily Tonnage Rates are based on permitted daily capacity for the Antelope Valley, Azusa, BKK, Lancaster, Lopez Canyon, Pebble Beach, Puente Hills, Spadra, and Sunshine landfills. The expected daily tonnage rate for Brand Park, Burbank, Calabasas, Chiquita, San Clemente, Scholl, and Whittier (Storage) landfills are based on the average daily tonnage for the period of 1/1/85 to 12/31/95. On 10/3/96, the Azusa Land Reclamation Landfill ceased accepting non-hazardous waste for disposal but continues to accept inert waste. The remaining permitted disposal capacities at the Antelope Valley, Bradley, Brand Park, Burbank, Pebble Beach, San Clemente, Sunshine Canyon and Whittier Landfills were increased by 10 percent beginning January 1, 1998, on the assumption that these facilities will fully utilize ADC materials. The remaining permitted disposal capacities at the Calabasas, Puente Hills, Scholl and Spadra Landfills were not increased due to the existing use of green waste ADC materials at those Landfills.

LEGEND:

- C - Closed due to exhausted capacity
- L - Does not accept waste from the city of Los Angeles and Orange County
- P - Closed due to Permit Expiration
- R - Restricted Wasteshed
- ADC - Alternative Daily Cover
- CMMMB - County Integrated Waste Management Board
- tpd-6 - tons per day, 6 day per week average.

**TABLE 4-8, SUMMARY
SCENARIO B
DISPOSAL CAPACITY SHORTFALL ANALYSIS
ASSUMING NO NEW OR EXPANDED IN-COUNTY LANDFILLS AND
ALTERNATIVE DAILY COVER CAPACITY SAVINGS DURING THE PLANNING PERIOD
Based on January 1, 1995 through December 31, 1995 six-day average tonnages and
assuming AB 939 diversion is fully implemented
Los Angeles County Countywide Siting Element**

Year	Waste Generation Rate	Percent Diversion	Total Disposal Need	Maximum Daily Transformation Capacity	Landfill Disposal Need	Daily Disposal Capacity Shortfall (Excess)
	(tpd-6)		(tpd-6)	(tpd-6)		(tpd-6)
1995	49,133	25.00%	36,849			
1996	50,406	30.00%	35,285	1,977	33,308	(22,234)
1997	51,290	35.00%	33,339	1,977	31,362	(2,720)
1998	52,123	40.00%	31,274	1,977	29,297	(2,269)
1999	52,582	45.00%	28,920	1,977	26,943	(1,972)
2000	53,661	50.00%	26,830	1,977	24,853	2,042
2001	54,815	50.00%	27,407	1,977	25,430	3,946
2002	55,792	50.00%	27,896	1,977	25,919	4,372
2003	56,839	50.00%	28,420	1,977	26,443	4,830
2004	57,824	50.00%	28,912	1,977	26,935	17,260
2005	58,750	50.00%	29,375	1,977	27,398	17,664
2006	59,692	50.00%	29,846	1,977	27,869	24,090
2007	60,628	50.00%	30,314	1,977	28,337	24,499
2008	61,557	50.00%	30,778	1,977	28,801	24,905
2009	62,478	50.00%	31,239	1,977	29,262	25,307
2010	63,390	50.00%	31,695	1,977	29,718	25,705

ASSUMPTIONS:

- 1.- The waste Generation Rate was estimated using the CIWMB's adjustment methodology, utilizing population and economic projections available from the State Department of Finance and the Southern California Association of Governments.
- 2.- Diversion Rate 25% in 1995, increase to 50% by 2000 and thereafter.
- 3.- The remaining permitted disposal capacity at some of the Landfills was increased by 10% beginning 1/1/98, on the assumption that these facilities will fully utilize ADC materials.

NOTES:

- 1.- The 1995 Disposal Tonnage Rates are based on permitted daily capacity and on the average daily tonnages for the period of 1/1/95 to 12/31/95.
- 2.- "tpd-6": tons per day, 6 day per week average.

Source: Los Angeles County Department of Public Works, February 1997.

- a) Solid Waste Imports - The analysis assumes waste imports averaging 2,400 tons per day (six days/week) for 1996, which is an estimate based on disposal quantities for the first three quarters of 1996 averaging 2,620 tons per day and assumes substantially lower import quantities for the fourth quarter of 1996. The import quantities are assumed to decrease to 1,500 tons per day by 1997, and are gradually phased out to zero by the year 2000 and thereafter. It should be noted that, in reality, waste imports may never reach this level during the planning period since certain areas of Ventura County which are within the Calabasas Landfill waste shed have traditionally disposed from 200 to over 400 tons per day at the Landfill, and other facilities in the County may continue to receive some waste imports in the future.
- b) Solid Waste Exports - The analysis assumes that waste exports to out-of-County facilities will increase from an average of under 170 tons per day (six days per week) in 1995 to an average of 2,000 tons per day by 1996, and to 3,500 tons per day for 1997 through the year 2003. Upon the expiration of the Puente Hills Landfill's conditional use permit in November 2003, waste exports are assumed to increase to 6,000 tons per day and are maintained at that level through the end of the planning period (the year 2010).

Table 4-9 or Table 4-10, Summary, present a disposal capacity shortfall analysis based on this scenario. The analysis considers achievement of the AB 939 waste diversion mandates of 25 percent by 1995 and 50 percent by the year 2000 and thereafter through the year 2010. This analysis also considers use of permitted available capacity at Sunshine Canyon Landfill expansion for the second half of 1996 and thereafter. Assumed quantities of imported waste are shown in the fifth column (from left to right) of Table 4-9, and export quantities are shown on the sixth column. As in the other scenarios, transformation facilities are assumed to operate at their maximum permitted daily capacity, and their combined capacity is shown in the seventh column of Table 4-9. The resulting in-County Class III landfill disposal need and disposal capacity shortfall (excess), once all of the above factors have been taken into account, are shown in the eighth and last columns of Table 4-9, respectively.

Based on this analysis, a daily disposal capacity shortfall of approximately 450 tons per day (six days per week) will be experienced by 2001. The shortfall would increase to 1,300 tons per day by 2003, and to over 11,000 tons per day by 2004 due to the expiration of the Puente Hills Landfill's conditional use permit in November 2003. It should be noted that under this scenario, reserve daily disposal capacity would fall below 5,000 tons per day by 1997.

TABLE 4.9
SCENARIO C
DISPOSAL CAPACITY SHORTFALL ANALYSIS
ASSUMING NO NEW OR EXPANDED IN-COUNTY LANDFILLS AND
UTILIZATION OF OUT-OF-COUNTY DISPOSAL FACILITIES DURING THE PLANNING PERIOD
Based on January 1, 1995 through December 31, 1995 six-day average tonnages and
assuming AB 939 diversion is fully implemented
Los Angeles County Countywide Siting Element

Year	Waste Generation Rate (tpd-5)	Percent Diversion	Total L.A. Co. Disposal Need (tpd-5)	Imported Waste (tpd-5)	Waste Exports to Out-of-County Landfills (tpd-5)	Maximum Daily Transformation Capacity (tpd-5)	Total In-County Class III Disposal (tpd-5)	Remaining permitted landfill capacity at year's end, Million Tons																	Daily Disposal Capacity Shortfall (Excess) (tpd-5)	
								1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
1995	49,133	25.00%	36,849	2,481	167	1,935	37,328	750	6,000	12,000	6,000	28	132	2,159	1,389	1,000	3,333	15	12,000	2	1,448	2,500	6,000	232		
1996	50,406	30.00%	35,285	2,400	2,000	1,977	33,708	2.1	3.0	2.7	7.6	0.59	6.4	15	1.9	0.47	0.5	0.042	29.3	0.048	10.91	2.1	16.9	2.7	(21,834)	
1997	51,290	35.00%	33,339	1,500	3,500	1,977	29,362	1.400	6,000	12,000	6,000	27	129	2,107	1,389	1,000	3,333	15	12,000	2.0	1,413	2,500	6,000	227	(4,720)	
1998	52,129	40.00%	31,274	1,000	3,500	1,977	28,797	1.3	1.400	1.400	3.9	0.57	6.3	13.9	1.970	1.389	1,000	3,333	15	12,000	2.18	10.0	0.6	14.1	2.5	(4,769)
1999	52,582	45.00%	28,920	500	3,500	1,977	23,943	0.8	1.400	1.400	2.0	0.57	6.2	13.2	1.970	1.389	1,000	3,333	15	12,000	18.1	9.6	9.6	12.2	2.5	(4,972)
2000	53,661	50.00%	26,830	0	3,500	1,977	21,353	0.4	1.400	1.400	0.1	0.56	6.2	12.6	1.833	1.389	1,000	3,333	15	12,000	14.4	9.2	9.2	10.3	2.4	(1,458)
2001	54,815	50.00%	27,407	0	3,500	1,977	21,930	C			0.55	6.2	12.0	1.872	1.389	1,000	3,333	15	12,000	10.6	8.9	8.9	8.5	2.3	446	
2002	55,792	50.00%	27,986	0	3,500	1,977	22,419	0.54	6.1	11.4	0.54	6.1	11.4	1.906	1.389	1,000	3,333	15	12,000	8.9	8.5	8.5	8.8	2.3	872	
2003	56,839	50.00%	28,420	0	3,500	1,977	22,943	0.54	6.1	10.8	0.53	6.1	10.2	1.941	1.389	1,000	3,333	15	12,000	3.1	8.1	8.1	4.7	2.2	1,330	
2004	57,824	50.00%	28,912	0	3,500	1,977	20,935	0.53	6.1	10.2	0.53	6.1	10.2	1.975	1.389	1,000	3,333	15	12,000	15	7.2	7.2	2.9	2.1	11,260	
2005	58,750	50.00%	29,375	0	3,500	1,977	21,398	0.52	6.0	9.6	0.52	6.0	9.6	2,007	1.389	1,000	3,333	15	12,000	0.043	7.2	7.2	1.0	2.1	11,879	
2006	59,692	50.00%	29,846	0	3,500	1,977	21,869	0.51	6.0	9.0	0.51	6.0	9.0	2,039	1.389	1,000	3,333	15	12,000	0.042	6.8	6.8	0.0	2.0	18,090	
2007	60,628	50.00%	30,314	0	3,500	1,977	22,337	0.50	5.9	8.3	0.50	5.9	8.3	2,071	1.389	1,000	3,333	15	12,000	0.042	6.4	6.4	0.0	1.9	18,489	
2008	61,557	50.00%	30,778	0	3,500	1,977	22,801	0.50	5.9	7.7	0.50	5.9	7.7	2,103	1.389	1,000	3,333	15	12,000	0.041	6.0	6.0	0.0	1.9	18,905	
2009	62,478	50.00%	31,239	0	3,500	1,977	23,262	0.49	5.9	7.0	0.49	5.9	7.0	2,134	1.389	1,000	3,333	15	12,000	0.041	5.5	5.5	0.0	1.8	19,307	
2010	63,390	50.00%	31,695	0	3,500	1,977	23,718	0.48	5.8	6.4	0.48	5.8	6.4	2,165	1.389	1,000	3,333	15	12,000	0.040	5.1	5.1	0.0	1.7	19,705	
								0.47	5.8	5.7	0.47	5.8	5.7							0.039	4.6	4.6	0.0	1.7		

ASSUMPTIONS:

- The Waste Generation Rate was estimated using the CWMIB's adjustment methodology, utilizing population and economic projections available from the State Department of Finance and the Southern California Association of Governments.
- Diversion Rate 25% in 1985, increase to 50% by 2000 and thereafter.
- Expected Daily Tonnage Rates are based on permitted daily capacity for the Antelope Valley, Azusa, BKK, Lancaster, Lopez Canyon, Pebble Beach, Puente Hills, Spadra, and Sunshine Landfills. The expected daily tonnage rate for Brand Park, Bradley, Burnbank, Calabasas, Chiquita, San Clemente, School, and Whittier (Savage) Landfills are based on the average daily tonnage rate for the period of 1/1/93 to 12/31/95.
- On 10/3/95, the Azusa Land Reclamation Landfill cease accepting non-hazardous solid waste for disposal, but continues to accept inert waste.
- tpd-5: tons per day, 8 day per week average.
- Import quantities for 1996 and beyond are assumed.
- Export quantities for 1996 and beyond are assumed.

Source: Los Angeles County Department of Public Works, February, 1997.

LEGEND:

- C - Closed due to exhausted capacity
- L - Does not accept waste from the city of Los Angeles and Orange County
- P - Closed due to Permit Expiration
- R - Restricted Wastewater
- CWMIB - County Integrated Waste Management Board

**TABLE 4-10, SUMMARY
SCENARIO C
DISPOSAL CAPACITY SHORTFALL ANALYSIS
ASSUMING NO NEW OR EXPANDED IN-COUNTY LANDFILLS AND UTILIZATION OF
OUT-OF-COUNTY DISPOSAL FACILITIES DURING THE PLANNING PERIOD
Based on January 1, 1995 through December 31, 1995 six-day average tonnages and
assuming AB 939 diversion is fully implemented
Los Angeles County Countywide Siting Element**

Year	Waste Generation Rate	Percent Diversion	Total L. A. Co. Disposal Need	Imported Waste	Waste Exports to Out-of County Landfills	Maximum Daily Transformation Capacity	Landfill Disposal Need	Daily Disposal Capacity Shortfall (Excess)
	(tpd-6)		(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)
1995	49,133	25.00%	36,849	2,481	167	1,835	37,328	
1996	50,406	30.00%	35,285	2,400	2,000	1,977	33,708	(21,834)
1997	51,290	35.00%	33,339	1,500	3,500	1,977	29,362	(4,720)
1998	52,123	40.00%	31,274	1,000	3,500	1,977	26,797	(4,769)
1999	52,582	45.00%	28,920	500	3,500	1,977	23,943	(4,972)
2000	53,661	50.00%	26,830	0	3,500	1,977	21,353	(1,458)
2001	54,815	50.00%	27,407	0	3,500	1,977	21,930	446
2002	55,792	50.00%	27,896	0	3,500	1,977	22,419	872
2003	56,839	50.00%	28,420	0	3,500	1,977	22,943	1,330
2004	57,824	50.00%	28,912	0	6,000	1,977	20,935	11,260
2005	58,750	50.00%	29,375	0	6,000	1,977	21,398	11,679
2006	59,692	50.00%	29,846	0	6,000	1,977	21,869	18,090
2007	60,628	50.00%	30,314	0	6,000	1,977	22,337	18,499
2008	61,557	50.00%	30,778	0	6,000	1,977	22,801	18,905
2009	62,478	50.00%	31,239	0	6,000	1,977	23,262	19,307
2010	63,390	50.00%	31,695	0	6,000	1,977	23,718	19,705

ASSUMPTIONS:

- 1.- The waste Generation Rate was estimated using the CIWMB's adjustment methodology, utilizing population and economic projections available from the State Department of Finance and the Southern California Association of Governments.
- 2.- Diversion Rate 25% in 1995, increase to 50% by 2000 and thereafter.
- 3.- Import and Export quantities for 1996 and beyond are assumed.

NOTES:

- 1.- The 1995 Disposal Tonnage Rates are based on permitted daily capacity and on the average daily tonnages for the period of January 1, 1995 to December 31, 1995.
- 2.- "tpd-6": tons per day, 6 day per week average.

Source: Los Angeles County Department of Public Works, February 1997.

Based on the preceding analysis, Scenarios A, B, and C, a shortfall in daily permitted disposal capacity would occur prior to the year 2010. Therefore, in order to satisfy the disposal capacity requirements of AB 939 for the 15-year planning period, additional disposal capacity must be identified.

Chapter 7 describes the site identification process and provides a detailed description of in-County potential landfill expansions and potential new landfill sites which are necessary to meet the disposal capacity requirements. The adequacy of the additional disposal capacity identified in Chapter 7 is discussed in detail in the following section. In addition to in-County potential Class III landfill capacity identified in Chapter 7 and discussed in Section 4.6 of this chapter, Chapter 9 of the CSE describes out-of-County disposal facilities (existing and potential) that can be used by jurisdictions in Los Angeles County during the 15-year planning period.

4.6 ADEQUACY OF PROPOSED IN-COUNTY CLASS III LANDFILL DISPOSAL CAPACITY

4.6.1 Introduction

As discussed in Chapter 1, Subsection 1.4.2, in the mid-1980s, Los Angeles County experienced unprecedented population growth and associated increases in waste generation. This together with the lack of development of those transformation (waste-to-energy) facilities identified in the CoSWMP, caused a rapid depletion of available landfill disposal capacity. This situation prompted the Los Angeles County Board of Supervisors to initiate a major Countywide planning effort to avert a "garbage crisis", which culminated with the adoption of the Los Angeles County Solid Waste Management Action Plan in April 1988. The Action Plan is an integrated regional approach to managing solid waste, incorporating source reduction, recycling, composting, household hazardous waste, and public education/awareness programs. The Action Plan also recognized that landfilling would be an essential component of an integrated solid waste management system in the foreseeable future since the disposal of solid wastes which cannot be diverted is an essential public service. The Action Plan provides a long-range solution to the solid waste disposal capacity needs of Los Angeles County through the following goals:

- Develop 50 years of permitted in-County solid waste disposal capacity to be held in public ownership, with appropriate land use protections for use through public, private, or public/private joint venture operation.
- Perform detailed environmental studies on six identified potential new landfill sites.
- Support expansion of existing landfills provided it is technically and environmentally feasible.

The alternative faced by Los Angeles County Board of Supervisors at the time was to shift the responsibility for protection of public health and safety by providing adequate solid waste disposal capacity to neighboring counties and states. The situation currently facing the County is, in essence, no different today than it was in 1988. To ensure protection of public health and safety, the jurisdictions in Los Angeles County must strive to provide for the disposal needs of their residents through in-County disposal facilities, if environmentally safe and technically feasible. Failing to do this would constitute delegation of this essential public service to adjacent counties and states.

The enactment of the California Integrated Waste Management Act together with its requirement to address the disposal needs of Los Angeles County for a 15-year planning period, has underscored the importance of disposal capacity as an essential component of an integrated waste management system.

4.6.2 Out-of-County Disposal

While the goal of jurisdictions in Los Angeles County is to provide in-County disposal capacity to serve the needs of their residents, past and current experience in siting new landfills and/or expansions of existing landfills underscores the magnitude of the challenge facing Los Angeles County. Delays associated with the environmental review process and litigation (which has become an inevitable component of the planning process) have increased the time required to permit a landfill expansion, in excess of seven years, and more than ten years to permit a new landfill. Thus, more than ten years advance planning is required to maintain appropriate disposal capacity in the County, as well as maximizing all available disposal options in the event that planned capacity does not materialize.

One of these options is the disposal of County-generated waste at out-of-County facilities through rail and/or truck transport. Jurisdictions throughout Los Angeles County have recognized the need for out-of-County disposal capacity to supplement and extend the life of in-County disposal capacity. In fact, it appears that out-of-County disposal will be necessary to supplement Los Angeles County's disposal capacity in the present as well as in the future, even if most of the potential disposal capacity identified in the CSE is permitted. For this reason, Los Angeles County considers interjurisdictional flow control measures and/or laws to be detrimental to its efforts to provide for the long-term disposal needs of its residents.

4.6.3 Adequacy of Potential in-County Disposal Capacity

As indicated in Subsection 4.6.1, the CSE's primary goal is to secure in-County disposal capacity, if feasible. A number of scenarios can be considered to determine how Los Angeles County can meet its solid waste disposal needs for the 15-year planning period. For the purpose of the CSE, Scenarios D and E provide alternative analyses as to whether Los Angeles County can provide for its State-mandated 15-years disposal capacity by

utilizing existing in-County disposal facilities, developing new in-County disposal facilities, and/or expanding existing facilities as identified in Chapter 7.

- **Scenario D - Existing In-County Capacity and Landfill Expansions Only - No New Landfills**

Scenario D assumes that all Los Angeles County solid waste that must be disposed of will be managed at existing in-County permitted disposal facilities during the 15-year planning period. The scenario also assumes that all proposed expansions of existing in-County landfills as identified in Chapter 7 will be successfully permitted and developed to their full capacity, as proposed. Additionally, the analysis assumes that no new in-County Class III landfills will become operational during the 15-year planning period. The analysis is similar to Scenario A, and presented in Tables 4-11 and 4-12, Summary, in the same format as Tables 4-5 and 4-6, Summary, respectively. In the analysis, best judgment was used to project when additional disposal capacity would be made available based on information provided in Chapter 7, Tables 7-5 through 7-10.

Table 4-11 and Table 4-12, Summary, present a Disposal Capacity Shortfall analysis based on this scenario. The analysis considers achievement of the AB 939 waste diversion mandates of 25 percent by 1995 and 50 percent by the year 2000 and thereafter through the year 2010. This analysis also considers use of permitted available capacity at the Sunshine Canyon Landfill County expansion beginning the second half of 1996 and thereafter. Additionally, the analysis assumes that the proposed Chiquita Canyon and Lancaster Landfill expansions will receive approval and will become operational in 1997, and that the City of Los Angeles will approve the proposed City/County expansion of the Sunshine Canyon Landfill and the expanded facility will become operational in 1999.

Based on this analysis, no permitted daily capacity shortfall would occur within the 15-year planning period. However, it should be noted that under this scenario, reserve daily disposal capacity would fall from about 10,000 tons per day (six days per week) in the year 2000 to less than 1,000 tons per day (six days per week) by 2010.

It should also be noted that the potential expansion of the Scholl Canyon Landfill described in Chapter 7 does not appear in Table 4-11 since the existing remaining permitted disposal capacity at the facility is not expected to be exhausted within the CSE's 15-year planning period.

TABLE 4-11
SCENARIO D
DISPOSAL CAPACITY SHORTFALL ANALYSIS
UTILIZING EXISTING LANDFILLS, AND ASSUMING DEVELOPMENT OF ALL PROPOSED EXPANSIONS DURING THE PLANNING PERIOD
Based on January 1, 1995 through December 31, 1995 six-day average tonnages and assuming AB 939 diversion is fully implemented
Los Angeles County Countywide Siting Element

Year	Waste Generation Rate	Percent Diversion	Total Disposal Need	Maximum Daily Transformation Capacity	Landfill Disposal Need	Remaining permitted landfill capacity at year's end, Million Tons																	Daily Disposal Capacity Shortfall (Excess)
						1 Antelope Valley	2 Azusa	3 BKK	4 Bradley	5 Brand Park	6 Burbank	7 Calabasas	8 Chiquita*	9 Lancaster*	10 Lopez	11 Pebble Beach	12 Puente Hills*	13 San Clemente	14 Scholl	15 Spadra	16 Sunshine	17 Whittier	
1995	(tpd-6) 49,133	25.00%	(tpd-6) 36,849	(tpd-6)	(tpd-6)	750	6,000	12,000	6,000	28	132	2,159	1,389	1,000	3,333	15	12,000	2	1,448	2,500	6,000	232	(tpd-6)
1996	50,406	30.00%	35,285	1,977	33,308	2.1	3.0	2.7	7.6	0.59	6.4	15	1.9	0.47	0.5	0.042	29.3	0.048	10.91	2.1	16.9	2.7	(22,234)
1997	51,290	35.00%	33,339	1,977	31,362	1.400	6,000	1.1	5.8	0.58	6.3	14.4	1.5	0.15	P	0.037	25.6	0.047	10.5	1.3	16.0	2.5	(9,420)
1998	52,123	40.00%	31,274	1,977	29,297	1.3	C	1.3	3.9	0.57	6.3	13.8	19.4	E	E	0.032	21.8	0.047	10.0	0.6	14.1	2.5	(8,969)
1999	52,582	45.00%	28,920	1,977	26,943	0.8	1,400	0.8	2.0	0.57	6.2	13.2	17.8	9.59	C	0.028	18.1	0.046	9.6	C	12.2	2.5	(13,672)
2000	53,661	50.00%	26,830	1,977	24,853	0.4	E	0.4	0.1	0.56	6.2	12.6	16.2	9.06	E	0.023	14.4	0.046	9.2	E	83.8	2.4	(10,058)
2001	54,815	50.00%	27,407	1,977	25,430	6.2	1,800	6.2	0.55	6.2	12.0	14.7	8.33	0.018	10.6	0.045	8.9	0.045	8.9	11,000	201	(9,554)	
2002	55,792	50.00%	27,896	1,977	25,919	5.7	1,800	5.7	0.54	6.1	11.4	13.1	8.00	0.014	6.9	0.045	8.5	0.045	8.5	12,778	76.9	2.3	(9,128)
2003	56,839	50.00%	28,420	1,977	26,443	5.1	1,800	5.1	0.54	6.1	10.8	11.6	7.47	0.009	3.1	0.044	8.1	0.044	8.1	13,022	73.5	2.2	(8,670)
2004	57,824	50.00%	28,912	1,977	26,935	4.5	1,800	4.5	0.53	6.1	10.2	10.0	6.94	0.004	37.0	0.044	7.7	0.044	7.7	11,000	209	(8,240)	
2005	58,750	50.00%	29,375	1,977	27,398	4.0	1,800	4.0	0.52	6.0	9.6	8.4	6.41	C	39.3	0.043	7.2	0.043	7.2	11,000	219	(7,821)	
2006	59,692	50.00%	29,846	1,977	27,889	3.4	1,800	3.4	0.51	6.0	9.0	6.9	5.88	0.042	29.5	0.042	6.8	0.042	6.8	11,000	219	(7,410)	
2007	60,628	50.00%	30,314	1,977	28,337	2.8	1,800	2.8	0.50	5.9	8.3	5.3	5.35	0.042	25.8	0.042	6.4	0.042	6.4	11,000	219	(7,001)	
2008	61,557	50.00%	30,778	1,977	28,801	2.3	1,800	2.3	0.50	5.9	7.7	3.8	4.82	0.041	22.0	0.041	6.0	0.041	6.0	11,000	226	(6,595)	
2009	62,478	50.00%	31,239	1,977	29,262	1.7	1,800	1.7	0.49	5.9	7.0	2.2	4.29	0.041	18.3	0.041	5.5	0.041	5.5	11,000	229	(6,183)	
2010	63,390	50.00%	31,695	1,977	29,718	1.2	1,800	1.2	0.48	5.8	6.4	0.6	3.76	0.040	14.5	0.040	5.1	0.040	5.1	11,000	233	(7,95)	
						0.6			0.47	5.8	5.7	3.23		10.8	0.039	4.6		0.039	4.6		46.0	1.7	

ASSUMPTIONS:

- The Waste Generation Rate was estimated using the CIMMB's adjustment methodology, utilizing population and economic projections available from the State Department of Finance and the Southern California Association of Governments.
- Diversion Rate 25% in 1995, increase to 50% by 2000 and thereafter.
- Expected Daily Tonnage Rates are based on permitted daily capacity for the Antelope Valley, Azusa, BKK, Lancaster, Lopez Canyon, Pebble Beach, Puente Hills, Spadra, and Sunshine landfills. The expected daily tonnage rate for Brand Park, Bradley, Burbank, Calabasas, Chiquita, San Clemente, Scholl, and Whittier (Saverge) landfills are based on the average daily tonnages for the period of 1/1/95 to 12/31/95.
- On 10/3/96, the Azusa Land Reclamation Landfill ceased accepting non-hazardous solid, but continues to accept inert waste.
- "tpd-6": tons per day, 6 day per week average.

LEGEND:

- C - Closed due to exhausted capacity
- E - Expansion becomes effective
- L - Does not accept waste from the city of Los Angeles and Orange County
- P - Closed due to Permit Expiration
- R - Restricted Wasteload
- CIMMB - County Integrated Waste Management Board

**TABLE 4-12, SUMMARY
SCENARIO D
DISPOSAL CAPACITY SHORTFALL ANALYSIS
UTILIZING EXISTING LANDFILLS, AND ASSUMING DEVELOPMENT OF
ALL PROPOSED EXPANSIONS DURING THE PLANNING PERIOD
Based on January 1, 1995 through December 31, 1995 six-day average tonnages and
assuming AB 939 diversion is fully implemented
Los Angeles County Countywide Siting Element**

Year	Waste Generation Rate	Percent Diversion	Total Disposal Need	Maximum Daily Transformation Capacity	Landfill Disposal Need	Daily Disposal Capacity Shortfall (Excess)
	(tpd-6)		(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)
1995	49,133	25.00%	36,849			
1996	50,406	30.00%	35,285	1,977	33,308	(22,234)
1997	51,290	35.00%	33,339	1,977	31,362	(9,420)
1998	52,123	40.00%	31,274	1,977	29,297	(8,969)
1999	52,582	45.00%	28,920	1,977	26,943	(13,672)
2000	53,661	50.00%	26,830	1,977	24,853	(10,058)
2001	54,815	50.00%	27,407	1,977	25,430	(9,554)
2002	55,792	50.00%	27,896	1,977	25,919	(9,128)
2003	56,839	50.00%	28,420	1,977	26,443	(8,670)
2004	57,824	50.00%	28,912	1,977	26,935	(8,240)
2005	58,750	50.00%	29,375	1,977	27,398	(7,821)
2006	59,692	50.00%	29,846	1,977	27,869	(7,410)
2007	60,628	50.00%	30,314	1,977	28,337	(7,001)
2008	61,557	50.00%	30,778	1,977	28,801	(6,595)
2009	62,478	50.00%	31,239	1,977	29,262	(6,193)
2010	63,390	50.00%	31,695	1,977	29,718	(795)

ASSUMPTIONS:

- 1.- The waste Generation Rate was estimated using the CIWMB's adjustment methodology, utilizing population and economic projections available from the State Department of Finance and the Southern California Association of Governments.
- 2.- Diversion Rate 25% in 1995, increase to 50% by 2000 and thereafter.

NOTES:

- 1.- The 1995 Disposal Tonnage Rates are based on permitted daily capacity and on the average daily tonnages for the period of 1/1/95 to 12/31/95.
- 2.- "tpd-6": tons per day, 6 day per week average.

Source: Los Angeles County Department of Public Works, February 1997.

- **Scenario E - All Proposed Landfill Expansions and New Landfills Become Operational**

Scenario E assumes that all Los Angeles County solid waste that must be disposed of will be managed at existing in-County permitted disposal facilities during the 15-year planning period. Additionally, the scenario assumes the successful permitting and development of all in-County landfill expansions and new landfill sites as identified in Chapter 7. The analysis is similar to Scenario A, and presented in Tables 4-13 and 4-14, Summary, in the same format as Tables 4-5 and 4-6, Summary, respectively. In the analysis, best judgment was used to project when additional disposal capacity would be made available based on information provided in Chapter 7, Tables 7-2 through 7-9.

Table 4-13 and Table 4-14, Summary, present a Disposal Capacity Shortfall analysis based on this scenario. The analysis considers achievement of the AB 939 waste diversion mandates of 25 percent by 1995 and 50 percent by the year 2000 and thereafter through the year 2010.

Based on this analysis, no permitted daily capacity shortfall would occur within the 15-year planning period. Under this scenario, adequate reserve daily disposal capacity is provided during the planning period, with the proposed landfill expansions adequately meeting the Class III disposal needs of Los Angeles County in the short term and proposed new landfills meeting the projected disposal needs in the long term.

4.7 CONCLUSIONS

The preceding discussions have demonstrated that the potential expansion of existing landfills and the potential new landfills identified in Chapter 7 address the disposal need requirements of the jurisdictions in Los Angeles County for the 15-year planning period.

However, based on past and current experience in siting new or expanded capacity, it must be recognized that many (or all) of the sites may encounter strong opposition during the permitting process, and that not all of the sites may be approved. Even if a site is successfully permitted, the total approved capacity and daily capacity may be substantially less than requested by the project proponent.

Therefore, based on the Disposal Capacity Shortfall analyses and the foregoing discussion, the following can be concluded:

**TABLE 4-14, SUMMARY
SCENARIO E
DISPOSAL CAPACITY SHORTFALL ANALYSIS
UTILIZING EXISTING LANDFILLS, AND ASSUMING DEVELOPMENT OF ALL PROPOSED
EXPANSIONS AND PROPOSED NEW SITES DURING THE PLANNING PERIOD
Based on January 1, 1995 through December 31, 1995 six-day average tonnages and
assuming AB 939 diversion is fully implemented
Los Angeles County Countywide Siting Element**

Year	Waste Generation Rate	Percent Diversion	Total Disposal Need	Maximum Daily Transformation Capacity	Landfill Disposal Need	Daily Disposal Capacity Shortfall (Excess)
	(tpd-6)		(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)
1995	49,133	25.00%	36,849			
1996	50,406	30.00%	35,285	1,977	33,308	(22,234)
1997	51,290	35.00%	33,339	1,977	31,362	(9,420)
1998	52,123	40.00%	31,274	1,977	29,297	(8,969)
1999	52,582	45.00%	28,920	1,977	26,943	(13,672)
2000	53,661	50.00%	26,830	1,977	24,853	(26,558)
2001	54,815	50.00%	27,407	1,977	25,430	(26,054)
2002	55,792	50.00%	27,896	1,977	25,919	(25,628)
2003	56,839	50.00%	28,420	1,977	26,443	(25,170)
2004	57,824	50.00%	28,912	1,977	26,935	(24,740)
2005	58,750	50.00%	29,375	1,977	27,398	(40,821)
2006	59,692	50.00%	29,846	1,977	27,869	(40,410)
2007	60,628	50.00%	30,314	1,977	28,337	(40,001)
2008	61,557	50.00%	30,778	1,977	28,801	(39,595)
2009	62,478	50.00%	31,239	1,977	29,262	(39,193)
2010	63,390	50.00%	31,695	1,977	29,718	(33,795)

ASSUMPTIONS:

- 1.- The waste Generation Rate was estimated using the CIWMB's adjustment methodology, utilizing population and economic projections available from the State Department of Finance and the Southern California Association of Governments.
- 2.- Diversion Rate 25% in 1995, increase to 50% by 2000 and thereafter.

NOTES:

- 1.- The 1995 Disposal Tonnage Rates are based on permitted daily capacity and on the average daily tonnages for the period of 1/1/95 to 12/31/95.
- 2.- "tpd-6": tons per day, 6 day per week average.

Source: Los Angeles County Department of Public Works, February 1997.

- The planning process must incorporate adequate reserve daily capacity to handle unanticipated disposal needs as well as daily and seasonal variations in waste quantities.
- The planning process should include a variety of alternatives that will insure that the provision of solid waste disposal services remain uninterrupted during the planning period and beyond. This may include development of transformation facilities, increased recycling and other diversion efforts, and development of the infrastructure necessary for access to out-of-County disposal facilities.
- The anticipated disposal needs of Los Angeles County cannot be met by pursuing a single alternative (i.e., landfill expansions, new landfills, transformation technologies out-of-County disposal, etc.). Jurisdictions in Los Angeles must work on all fronts simultaneously in order to avert daily disposal capacity shortfalls in the medium and long term. As a part of this effort, economic incentives must be formulated to promote development of transformation facilities, a viable alternative to landfill technology.
- Since it takes up to 10 years or more to permit new or expanded capacity, the planning process must begin now in order to ensure the uninterrupted availability of solid waste disposal services, at reasonable cost, to serve the disposal need of all residents and businesses in Los Angeles County.

CHAPTER 5 ALTERNATIVE DISPOSAL TECHNOLOGIES

5.1 INTRODUCTION AND PURPOSE

5.1.1 Introduction

As discussed in Chapter 1 (Subsection 1.4.2.4) and consistent with the goals established in Chapter 2, the primary goal of the Los Angeles County CSE is to address the solid waste disposal needs of the 88 cities in Los Angeles County and the County unincorporated communities for a 15-year planning period. Adequate disposal capacity has been identified and discussed in Chapters 4 and 7 to address these needs, through utilization of existing in-County solid waste disposal facilities, expansion of existing facilities, and development of new facilities under various scenarios.

However, past and current experience in siting new landfills and expanding existing landfills underscores the difficulty of achieving this goal. In the last few years, proposed new landfills and expansions of existing landfills have encountered strong opposition to their development, particularly from residents living in the vicinity of those facilities and from environmental groups. This has resulted in an increasing interest in finding alternatives to landfill disposal that would have reduced negative impacts or have beneficial impacts on the environment. However, when evaluating alternatives to landfill disposal one must consider the definition of disposal under current State law to properly differentiate between disposal alternatives and diversion alternatives. State law (Section 40120.1 of the Public Resources Code) defines disposal as "the management of solid waste through landfill disposal or transformation at a permitted solid waste facility." Therefore, under the current law, the only disposal alternatives to landfills are transformation facilities.

State law (Section 40201 of the Public Resources Code) also defines transformation to mean "incineration, pyrolysis, distillation, gasification, or biological conversion other than composting. 'Transformation' does not include composting or biomass conversion." Alternative disposal technologies, i.e., transformation facilities, can extend the life of landfills by reducing the amount of waste in need of land disposal. Additionally, the life of existing landfills may be extended by the adoption of measures at the landfills which may further reduce the amount of solid waste disposed, and/or optimize the utilization of permitted landfill airspace by reducing the volume of cover materials and increasing compaction levels.

The development and viability of the various proposed alternative disposal technologies, and the methods to enhance existing landfill capacity, depend on technical and economic factors, air quality standards, and public acceptance. Further studies and testing of many of these technologies may be needed to determine if they are economically feasible.

5.1.2 Purpose

The purpose of this chapter is to describe existing and potential alternative solid waste disposal technologies and to provide a brief assessment on their current state of development. This chapter also describes a number of potential landfill capacity saving measures and the potential savings that may be realized by their adoption, together with their limitations and/or current state of development.

5.2 SOLID WASTE DISPOSAL FACILITIES

A solid waste disposal facility is defined as a facility at which solid waste is managed through land disposal and/or transformation processes. Solid waste disposal facilities include only solid waste landfills and transformation facilities.

5.2.1 Landfill Facilities

A solid waste landfill facility is a disposal site which employs an engineered method of disposing of solid waste on land in a manner that minimizes environmental hazards as mandated by Federal, State, and local laws and regulations. Solid waste landfill facilities include only Class III landfills and unclassified landfills. Chapter 3, Section 3.3.1 discusses the two classes of landfills.

5.2.2 Transformation Facilities

A transformation facility is defined in Section 18720 of the CCR as "a facility whose principal function is to convert, combust, or otherwise process solid waste by incineration, pyrolysis, destructive distillation, or gasification, or to chemically or biologically process solid wastes, for the purpose of volume reduction, synthetic fuel production, or energy recovery. Transformation facility does not include a composting facility."

Of the various transformation processes currently available or under development, waste-to-energy has been identified as an extremely effective alternative to divert the largest amount of solid waste from landfills. Waste-to-energy facilities are also subject to strict environmental standards including those mandated by the Federal Clean Air Act, Federal Clean Water Act, and other State, regional, and local laws and regulations. These facilities have been proven to be technically and environmentally feasible waste management alternatives to land disposal.

Chapter 6 and Appendix 6-A discuss in detail the siting criteria to be applied to new transformation facility sites.

5.3 ALTERNATIVE SOLID WASTE DISPOSAL TECHNOLOGIES

This section provides a description of various existing and proposed transformation technologies. Transformation technologies can be generally grouped into two main categories: a) thermal conversion processes, and b) biological/chemical conversion processes. The majority of the transformation processes that are currently being proposed to manage solid waste are various types of thermal conversion processes, which include waste-to-energy, pyrolysis, and gasification.

With the exception of waste-to-energy, these alternative disposal technologies are generally at a developmental stage. Although waste-to-energy is technically feasible and is successfully demonstrated in the United States and Europe, and specifically in Los Angeles County at facilities in Commerce and Long Beach, there are no proposed new waste-to-energy facilities in Los Angeles County at the present time.

Development of transformation facilities, even those using the proven incineration technologies, are likely to encounter strong public opposition due to concerns regarding potential environmental impacts. Also, the proponents of these technologies are generally seeking governmental agencies and municipalities to finance the development of new facilities or "proof-of-concept" facilities. Because of current fiscal constraints, few local governments may be in a position to finance the development of unproven technology and may need to rely on private sector for its development.

There are risks that are associated with the development of new technologies, which must be carefully weighed by a jurisdiction when considering alternative technologies as a part of their solid waste management strategies. Examples of these risks are the four facilities constructed (two in New Jersey, two in Los Angeles County) to utilize the Carver-Greenfield Process of drying wastewater treatment sludge prior to disposal, incineration, or other uses. After substantial expenditures, all four were proven ineffective and were declared "failed technology" by the U.S. Environmental Protection Agency.

Some of the technologies discussed below are in the construction stage of full-scale facilities. These technologies merit continued close observation of methods and costs as they mature. However, based on the above considerations and the length of time required to permit and develop these types of facilities, these technologies (with the exception of waste-to-energy) may not be ready for large-scale commercial operation to manage a significant portion of solid waste generated in Los Angeles County within the current planning period. Nevertheless, alternative technologies need to be continually evaluated so that in a not so distant future they may provide for the management of a significant share of the County's waste.

5.3.1 Thermal Conversion Processes

There are three types of systems for the thermal processing of solid waste: combustion systems, pyrolysis systems, and gasification systems, which are described below.

5.3.1.1 Combustion Systems (Waste-to-Energy)

Waste-to-energy, or "refuse-to-energy," is a term commonly used in referring to transformation processes where refuse is incinerated, in compliance with strict air quality regulations and standards, with or without preprocessing to shred the incoming solid waste. Units without preprocessing are referred to as mass-fired facilities. Waste processed prior to burning is referred to as refuse-derived-fuel (RDF). Refuse (solid waste) is typically burned at temperatures of about 2200 degrees Fahrenheit in waterwall boilers where thermal energy in the form of steam would be recovered. The steam would then be passed through steam turbines where the thermal energy would be converted to electricity. Waste-to-energy processes achieve approximately a 70 percent volume reduction in the solid waste; ash being the only residue produced.

Environmental issues associated with a waste-to-energy facility include potential impacts to air quality, water quality, traffic, aesthetics, and noise. The combustion of refuse to recover energy will generate emissions to the atmosphere which require that sophisticated control devices be employed. Controlled combustion, through the use of automated damper controls for air distribution, minimizes NO_x and CO_x . In addition, it has been demonstrated that ammonia injection into the furnace is successful in further reducing NO_x emissions. Sulfur dioxide, hydrochloric acid (HCl), dioxins/furans, cadmium, and lead are removed at an efficiency of up to 99 percent through the use of lime treatment in a dry scrubber neutralizing the acid gases. The final stage in a typical air pollution control system at a waste-to-energy facility is a filter baghouse which removes up to 99.95 percent of the particulate matter.

During the past two decades, an interest in waste-to-energy grew as a result of energy shortages and relatively high energy prices. State legislation was enacted in the 1980s which encouraged the development of waste-to-energy projects. Currently, there are two such facilities operating in Los Angeles County: the Commerce Refuse-to-Energy Facility in the City of Commerce and the Southeast Resource Recovery Facility (SERRF) in the City of Long Beach.

Waste-to-energy technology has been identified as the most effective option currently available to reduce the need for landfill disposal. Waste-to-energy is commercially, technically, and environmentally feasible, as has been demonstrated by the successful operation of the Commerce Refuse-to-Energy and the Southeast Resource Recovery Facilities in Los Angeles County. However, no new facility is currently proposed for development. The current lack of enthusiasm for waste-to-energy facilities is generally associated with economic factors such as the high capital costs involved in developing these

facilities, the deregulation of the energy industry, and the current low prices for power, and other factors such as the strong public opposition encountered by previous proposals due to air quality concerns. Additionally, its development has been discouraged by its current classification as disposal, rather than diversion under State law. While there are no current proposals to develop waste-to-energy facilities in Los Angeles County, this technology remains a valid disposal option for future consideration.

Other municipalities throughout the country rely on waste-to-energy facilities for management of significant amounts of their solid waste. Examples of this are the County of Fairfax, Virginia (Ogden Martin Systems of Fairfax, Inc. Owned/operated I-95 Energy/Resource Recovery Facility), and the City of Rochester, Massachusetts (Southeastern Massachusetts (SEMASS) Resource Recovery Facility), where most of the solid waste collected for disposal is incinerated.

Solid waste combustion systems (incinerators) can be designed to operate with two types of solid waste fuel: commingled solid waste (mass-fired) and pre-processed solid waste known as refuse-derived fuel (RDF-fired). Mass-fired combustion systems are the predominant type.

A. Mass-fired Combustion Systems

In a mass-fired combustion system, minimal processing is given to solid waste before it is placed in the charging hopper of the system. The crane operator in charge of loading the charging hopper manually rejects obviously unsuitable items. One of the most critical components of a mass-fired combustion system is the grate system. It serves several functions, including the movement of waste through the system, mixing of the waste, and injection of combustion air. Typical mass-fired combustion facilities are described below.

- i. Commerce Refuse-to-Energy Facility. The Commerce Refuse-to-Energy Facility (CREF) is a joint powers agency formed by the City of Commerce and the County Sanitation Districts of Los Angeles County (CSD). The CSD has operated CREF since its inception in 1987. It successfully meets the South Coast Air Quality Management District (SCAQMD) requirements and produces some of the lowest emissions from a facility of its type worldwide. The facility combusts approximately 360 tons of refuse per day, 7 days per week, and generates approximately 10 megawatts (MW) of electricity that is sold to Southern California Edison (SCE). Figure 5-1 is a schematic process diagram of the Commerce Refuse-to-Energy Facility.

Residual ash is created as a result of the burning process, and an ash treatment facility is operating at the site. The ash is mixed with cement in the drums of transit mix trucks. The mix is then transferred to portable

containers where it hardens into 16 to 17-ton blocks. These blocks are transported to the Puente Hills Landfill where they are crushed and recycled as a base material for roads.

- ii. Southeast Resource Recovery Facility. The Southeast Resource Recovery Facility (SERRF) is a joint powers agency formed by the City of Long Beach and the CSD. The City of Long Beach employs a private contractor to operate the facility. SERRF has the capacity to burn about 1,350 tons of refuse per day, 7 days per week, and generates approximately 30 MW of electricity that is sold to SCE.

Residual ash is created as a result of the burning process, and an ash treatment facility is operating at the site. SERRF adds cement to the ash and transports the mix to the Puente Hills Landfill where it is recycled as a base material for roads.

B. RDF-Fired Combustion Systems

Refuse-derived fuel (RDF) is the material remaining after the selected recyclable and noncombustible materials have been removed from the waste stream. The RDF can be produced in shredded or fluff form, or as densified pellets or cubes. Densified RDF is more costly to produce, but is easier to transport and store.

Due to the higher energy content of RDF compared to unprocessed solid waste, RDF combustion systems can be physically smaller than comparatively rated mass-fired systems. A RDF-fired system can also be controlled more effectively than a mass-fired system because of the more homogeneous nature of RDF, allowing for better combustion control and better performance of air pollution control devices. Typical RDF-fired combustors are shown below.

Southeastern Massachusetts (SEMASS) Resource Recovery Facility. This is a 2,800 tons-per-day, 52 MW waste-to-energy plant located in Rochester, Massachusetts. The plant is owned by five partners including Energy Answers Corporation, of Albany NY, and Bechtel Corporation. SEMASS employs a shred-and-burn concept - a process somewhat in between mass-burn and the more extensive refuse-derived fuel (RDF) preparation. SEMASS incorporates several engineering features that make it a state-of-the-art energy/environmental facility as well as a good neighbor, including use of air-cooled condensers, rail loading infrastructure (delivering 10 to 20 percent of the waste by rail car), extensive bottom ash processing, stabilization of fly ash in a patented process, and an innovative contract with the local utility, Commonwealth Electric Company, Wareham, which is not based on the Public Utility Regulatory Act (PURPA). An expansion of the facility was completed in 1993, increasing its capacity to over 2,800 tons per day of

OPERATION

The Commerce Refuse-to-Energy Facility will produce power seven days a week. 24 hours per day. An average of 50 trucks per day will deliver loads Monday through Friday during normal working hours. The Facility will burn 300 tons of trash per day and generate 10 megawatts of electricity for sale to Southern California Edison Company. This is enough electricity for 20,000 Southern California homes. Let's look at the Facility operation step-by-step.



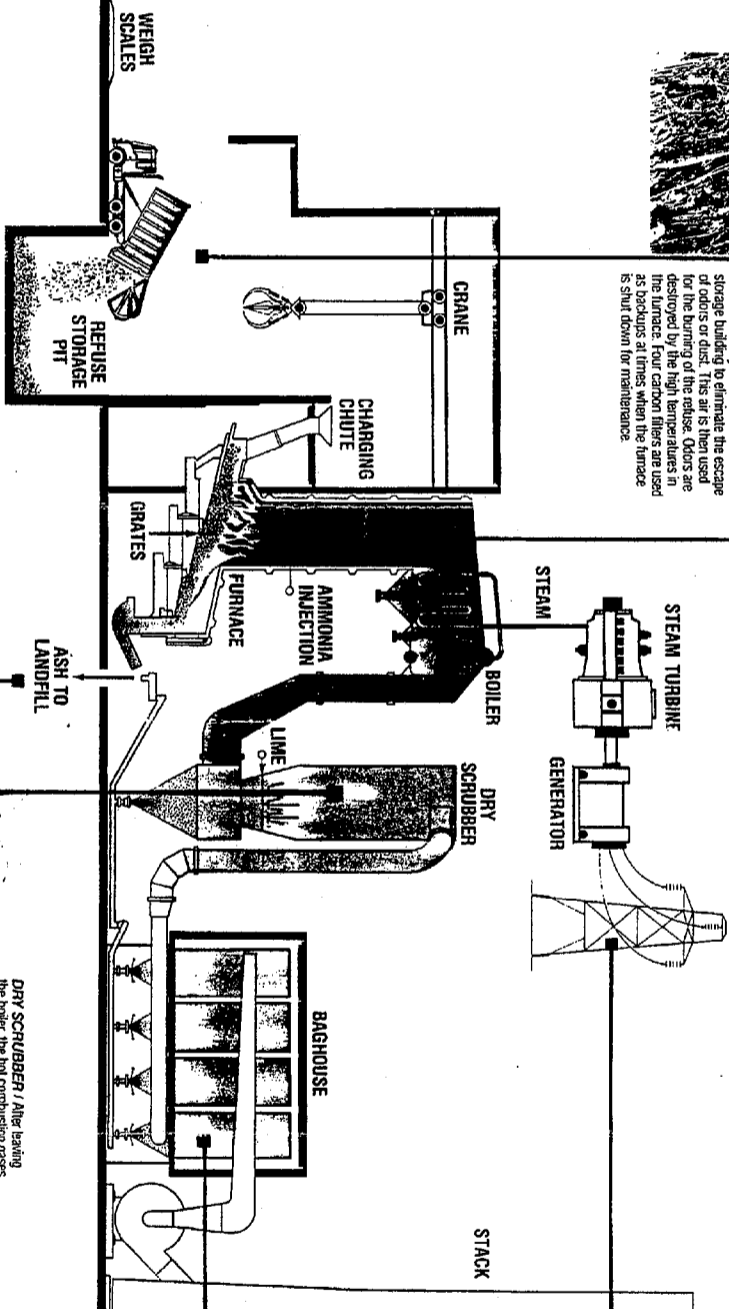
REFUSE STORAGE Pits / After weighing, the trucks will discharge their loads into the refuse storage pit. The storage pit has a 1200 ton capacity, enough to run the Facility for three to four days. A few loads will be pulled aside on an unannounced basis and scanned for hazardous wastes each day. The crane operator scoops up 3000 lb. loads of refuse and delivers them to the furnace feed chute. The entire storage pit area is enclosed and air is continually drawn into the refuse storage building to eliminate the escape of odors or dust. This air is then used for the burning of the refuse. Doors are destroyed by the high temperatures in the furnace. Four carbon filters are used as backups at times when the furnace is shut down for maintenance.



FURNACE AND BOILER / After the refuse reaches the bottom of the feed chute, hydraulic rams push it into the burning area. The floor of the furnace contains moving grates which move the burning refuse through the furnace and insure complete combustion. The ash falls from the ends of the grates, is quenched with water and put onto a conveyor belt for transport to ash storage. The hot gases of combustion rise through the furnace as they travel to the boiler. The walls of the furnace contain steel pipes carrying water which begins to heat as the gases pass over the pipes. Ammonia is injected into the furnace to remove oxides of nitrogen. As the hot gases enter the boiler, the hot water contained in the boiler tubing is converted to high pressure and temperature steam.



WEIGH SCALES / Each truck must be weighed and the weight recorded on the load slip before disposal of the load. All loads will be screened by meters for radioactive materials which, if found, will be safely handled by the County Department of Health Services.



ASH DISPOSAL / The ash from the furnace dry scrubber and baghouse is stored in an ash storage building for ultimate transport to landfill. Approximately 75 tons of ash per day are generated in the Facility. Although this is 25 percent of the total weight of refuse coming into the Facility, it is only ten percent of the total volume. In other words, the refuse volume is reduced by 90 percent. Future research will look into selling the fly ash for the production of cement and the bottom ash as construction material.



DRY SCRUBBER / After leaving the boiler, the hot combustion gases travel through the beginning of the sophisticated air pollution control system. The dry scrubber removes pollutants such as sulfur dioxide and hydrochloric acid. These acidic products of the waste combustion process are sprayed into the exhaust stream to neutralize these gases. At least 80 percent of the sulfur dioxide and 90 percent of the hydrochloric acid are removed in this process. The reacted lime and the fly ash (the airborne ash) are removed from the bottom of the spray dryer and sent to ash storage.

Source: Sanitation Districts

Commerce Refuse-to-Energy Facility Schematic Process Diagram
Los Angeles County Countywide Siting Element

Figure S-1

incoming waste. It serves over 40 communities and generates enough electricity to serve 75,000 homes. The average tipping fee is \$25 per ton. The facility was built in 1989 with a capacity of 1,800 tons a day which has been updated to the current 2,800 tons. Total cost to develop the facility was \$300 million.

Solid waste is first sorted with ferrous, glass, and other recyclables being removed. The waste is then shredded and then blown into a burner. Fly ash is used as a mortar for landfill cover, and the bottom ash is stockpiled for further recycling. The facility has met all US EPA New Source Performance Standards air quality regulations. It recently received the 1996 Corporate Award for Resource Recycling from the Ecological Society of America. Figure 5-2 is a schematic process diagram of the Southeastern Massachusetts (SEMASS) Resource Recovery Facility.

C. Fluidized Bed Combustion

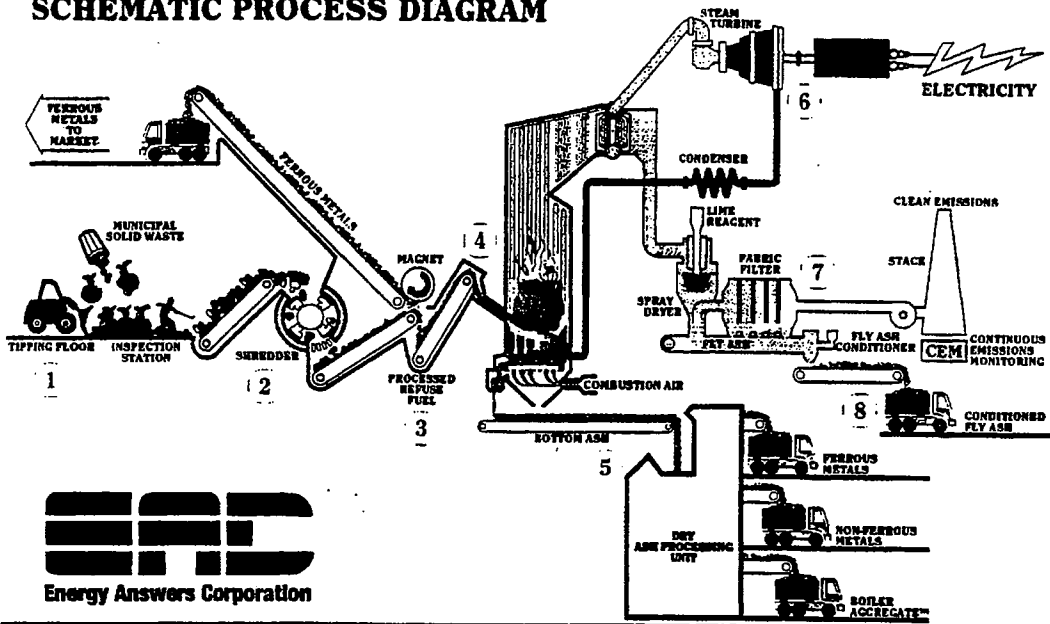
A fluidized bed is an alternative design to conventional combustion systems. It is a process in which a bed of particles is converted to a fluid state by means of an upward flow of gas (or liquid). In its simplest form, a Fluidized Bed Combustion (FBC) system consists of a vertical steel cylinder with a sand bed, a supporting grid plate, and air injection nozzles. When air is forced up through the nozzles, the bed of sand expands up to twice its resting volume and acts like a fluid. RDF can be injected into the reactor above or below the level of the fluidized bed. The "boiling" action of the fluidized bed promotes turbulence and mixing and transfers heat to the fuel. In operation, auxiliary fuel (natural gas or fuel oil) is used to bring the bed up to operating temperature (1450°F to 1750°F).

Fluidized bed combustors have a variety of advantages, including their simplicity of construction, their flexibility in accepting solid, liquid or gaseous fuels, and their high combustion efficiency at a low temperature minimizing NO_x generation. A major advantage is the possibility of in-bed removal of SO₂ using limestone or dolomite. Fluidized bed combustors are also suitable for intermittent operation as they can be started up after a nightly stop or even a full weekend.

Several FBC systems are being used for solid waste combustion throughout the world.

- i. Duluth Minnesota. A fluidized bed combustion plant, currently operating at 130 tons/day with a total design capacity of 700 tons/day, was built in Duluth, Minnesota. The initial plan was to co-dispose of 300 tons/day of dewatered treatment plant sludge and 400 tons/day of solid waste. Stack emissions for the plant are 5 percent of regulated values. The management for the plant is currently considering changing the solid waste/sludge management method to the N-Viro method or land application due to economic considerations regarding the operation of the plant. If this change in disposal is made, the plant will be dismantled.

SCHEMATIC PROCESS DIAGRAM



How the process works:

1. Municipal solid waste is delivered by collection trucks, transfer trailers, and rail cars to the enclosed receiving building. Here the waste is inspected, and bulky and recyclable materials are removed.
2. Refuse is pushed by front-end loaders onto conveyors which feed hammermill shredders. Waste is shredded to a size of 6" or less; then passed under magnets which remove about two-thirds of the ferrous (iron-bearing) metals for recycling.
3. This shredded material is called Processed Refuse Fuel (PRF). A ton of PRF has a heating value equal to 72 gallons of fuel oil or about one-third ton of coal.
4. The PRF is blown into specially-designed boilers. Light materials burn in suspension, while heavy portions of the fuel are burned on a traveling grate at the bottom of the boiler.
5. Dry ash from the boiler grates is conveyed to the EAC-patented bottom ash processing facility where it is processed into three components: ferrous metals, non-ferrous metals (aluminum, copper, brass, etc.), and a gravel-like material called Boiler Aggregate™. The metals are recycled through scrap dealers, and the aggregate is usable as fill material or a light-weight aggregate for concrete and asphalt products.
6. High-pressure steam produced in the boiler is passed through a turbine which drives the generator for production of electricity. The air-cooled condensers convert the steam back into water for re-use in the boilers.
7. Combustion gases are passed through scrubbers where they are sprayed with a lime reagent to neutralize acid-gas constituents. Gases are then passed through either electrostatic precipitators or fabric filters (bag-house) to capture particulates. A continuous emissions monitoring system measures and records levels of regulated compounds in the flue gas.
8. Fly ash, which is made up of the fine particles removed by the sophisticated air pollution control system, is collected separately from the bottom ash, conditioned using a proprietary process, and landfilled. Research is underway to develop a use for this material as well.

Source: Resource Recovery Energy Answers Corporation Albany, New York

SEMASS Schematic Process Diagram

Figure 5-2

Los Angeles County Countywide Siting Element

- ii. Fujisawa Japan. A 390-ton/day fluidized bed combustion system is operating in Fujisawa, Japan. The system employs a proprietary fluidized bed-moving design, which allows mass firing of unprocessed solid waste.
- iii. Energy Products of Idaho (EPI). This incineration system uses a bubble-type fluid bed concept that accepts prepared 10-cm (4-inch) top-size RDF. The RDF particles are exposed to a vigorously turbulent hot environment promoting gasification and char burnout. The design provides for continuous removal of oversized, noncombustible material. Thus, the tramp material does not build up enough to stop fluidization and incur shutdown for clean out. The design provides for continuous removal of oversized noncombustibles. The waste gases then pass through a waste-heat boiler to generate high pressure, superheated steam for electrical generation. The combustion system offered by EPI is at the stage of commercial availability. EPI has installed five furnaces in the U.S. with capacities of up to 600 tons/day using RDF. Examples of these plants are located in Brevard N; Tacoma, Washington; and Lacrosse Wisconsin.

D. Rotary Cascading Bed Combustion

The Rotary Cascading Bed Combustion (RCBC) is a robust solid-fuel burner and heat recovery system, a form of Fluidized Bed Combustion (FBC) system. It can burn solid waste, RDF, wood chips, etc. The system consists of a rotating horizontal cylindrical chamber with bundles of boiler tubes projecting into the end of the chamber. The rotational speed of the chamber is high enough to keep the bed material continually airborne, thus increasing combustion. The hot solids cycle preheats the combustion air, drying and ignites it. Two furnaces are now operating in the United States, a development unit at North American Rayon Corporation and a unit used by a hazardous waste firm in Houston, Texas. Pedco, Inc., of Cincinnati Ohio, has yet to develop a front end waste system to produce a sized RDF for its RCBC system. Almost all RDF systems have required extensive redesign to attain acceptable levels of reliability.

5.3.1.2 Pyrolysis Systems

Pyrolysis is the thermal processing of waste in the absence of oxygen. Pyrolysis systems are used to convert solid waste into gaseous, liquid, and solid fuels.

Because most organic substances are thermally unstable, they can, upon heating in an oxygen-free atmosphere, be broken down into gaseous, liquid, and solid components. In contrast to the combustion and gasification processes, the pyrolytic process requires an external heat source.

During a pyrolysis operation, municipal solid waste is shredded, fed to a reactor vessel, where it is heated to temperatures ranging from 900°F to 1400°F producing a combustible

gas or liquid oil, and char or ash. The gas or oil may either be burned immediately or processed further and sold as fuel. Since solid waste must be shredded prior to heating, potential environmental effects associated with the processing phase of a pyrolysis system are similar to those which may result from a mixed waste composting facility and include increases in noise, dust, traffic, and risk of fire and vector infestation. However, since the actual distillation step is in an enclosed environment, air quality impacts may be small. Pyrolysis is commonly used in the petroleum industry, but has limited operational experience in handling solid waste. In the United States, only a few small demonstration and commercial pyrolysis facilities have been constructed and operated, most of which have been shut down due to operational problems.

There are three major components resulting from the pyrolysis process. They are the following:

- A gas stream component, containing primarily hydrogen, methane, carbon monoxide, carbon dioxide, and various other gases depending on the organic characteristics of the material being processed.
- A liquid component, consisting of a tar or oil-like material containing acetic acid, acetone, methanol, and complex oxygenated hydrocarbons. Additional processing of this material results in a synthetic fuel oil.
- A char component, consisting of almost pure carbon, plus any inert material originally present in the solid waste.

The following are descriptions of some of the pyrolysis systems currently being proposed to manage solid waste:

- A. Occidental Flash Pyrolysis System. Only one full-scale solid waste pyrolysis system has been built in the United States. Constructed in El Cajon, California, the Occidental Flash Pyrolysis System did not achieve its primary operational goal (production of a saleable pyrolysis oil) and was shut down after two years of operation.

As might be expected with such a complex system, numerous operational problems were encountered. In an analysis of the system, the ultimate failure of the system was attributed to several factors, including the following:

- i. Failure of the front-end system to meet purity specifications for aluminum and glass, which affected the economics of the system.
- ii. Failure of the system to produce a saleable pyrolysis oil. The oil produced had a moisture content of 52 percent, not the 14 percent predicted from the

pilot plant results. The increased moisture in the oil decreased the energy content to 3,600 Btu/lb, as compared to the 9,100 Btu/lb predicted by the pilot plant tests.

- B. The Bal Pac 2000 Process. The Balboa Pacific Corporation has developed the Bal Pac 2000, a solid waste disposal system which utilizes pyrolytic conversion. The resulting material is a sterile ash. Balboa Pacific states that the ash can be used to produce a variety of usable products, and the combustible gases can be burned to produce electricity. According to Balboa Pacific, the ash produced is primarily carbon and stabilized (oxidized) metals. Rather than burning waste, the system thermally degrades organic materials at temperatures in excess of 1200°F. Balboa Pacific has stated that emissions resulting from the process meet all standards set by the U.S. Environmental Protection Agency. Balboa Pacific has a small, one-ton-per-day demonstration unit at their Santa Fe Springs, California facility. A 48 ton-per-day facility was tested with industrial waste at California Steel Company in Fontana. This unit has been reconditioned and was moved to Australia.
- C. Plasma Torch Technology. In essence, the technology harnesses the heating power of an artificial lightning bolt to produce the high temperatures that cannot be reached through any other process except through nuclear fission/fusion. A plasma is generated when gas, such as oxygen, passes through an electrical arc created by two electrodes. This results in an extremely high temperature that is reached with minimal gas flow. A plasma torch converts electrical energy into thermal energy, creating a localized area of plasma. The torch's intense heat can reach temperatures as high as 12000°C. Waste dissociates into a solid rock, leaving an inert, gray chunk of glass-like material.

In a 1990 study funded by the Electric Power Research Institute (EPRI), workers turned a 150-kilowatt plasma torch on shredded garbage, and found it reduced the weight of trash by 80 percent and volume by 99 percent. The missing mass emerged as a fuel-grade gas composed of mostly hydrogen, nitrogen, and carbon monoxide. The slag remained was safely inert.

Research in plasma torch technology is continuing at Georgia Tech University. The University, in partnership with Westinghouse and the U.S. Department of Energy, are testing hazardous waste on contaminated soil on the Savannah River. Evaluation of the test results will be completed in November 1997. Further testing will be made on nuclear waste.

A small community in northeast New Mexico has proposed the idea of acquiring a plasma torch for the disposal of waste. The torch would be capable of disposing of 20 to 40 tons of waste every eight hours. The torch would generate 25 percent more energy than it needs. The slag remained would be mostly inert. Estimated cost is approximately \$3 million.

- i. Bordeaux, France. Several years ago, public officials from the City of Bordeaux France, visited the Plasma Application Research Facility (PARF) at Georgia Tech University to observe a demonstration of the technology. To determine the technology's effectiveness, 5,200 pounds of Bordeaux incinerator ash were then shipped to Georgia Tech to be treated. Based on the results, the Bordeaux officials originally decided to build a plasma arc system to treat incinerator ash (France recently passed a law that banned landfilling all but inert wastes by the year 2000). However, the processing facility was built adjacent to the city's dismantled incinerator plant to instead treat the asbestos that is held there. Known as the Inertam, the asbestos treatment facility is believed to be the world's first industrial application of plasma arc technology in a waste treatment application.

The mobile furnace has been operational since the summer of 1994. It has a capacity of 10 tons per day. With the treatment of this asbestos nearly completed, the mobile plant will be dismantled and be moved to Milan Italy, to process other materials.

- ii. Matsuyama, Japan. The Japanese city of Matsuyama has a plasma arc facility to treat the 300 tons of incinerator ash that comes from a 3,000 ton-per-day transformation facility.
- iii. San Diego, California. Construction of a furnace by Kaiser Permanente that could torch 12 tons of medical waste a day has been canceled due to lack of funding.

5.3.1.3 Gasification Systems

Gasification is the conversion at higher temperatures of Refuse Derived Fuel (RDF) into combustible gases, using a limited amount of air. Gasification is a general term used to describe the process of partial combustion in which a fuel is deliberately combusted with less than the exact amount of oxygen (or air) needed for complete combustion.

Gasification is a technique for reducing the volume of solid waste and the recovery of energy. Essentially, the process involves partial combustion of a carbonaceous fuel to generate a combustible fuel gas rich in carbon monoxide, hydrogen, and some saturated hydrocarbons, principally methane. The combustible fuel gas can then be combusted in an internal combustion engine, gas turbine, or boiler under excess-air conditions.

There are six basic types of gasifiers:

- A. vertical fixed bed
- B. horizontal fixed bed
- C. fluidized bed

- D. circulating fluid bed
- E. indirectly heated fluidized bed
- F. rotary kiln

The following is a brief description of the basic types of gasification systems.

A. Vertical Fixed Bed

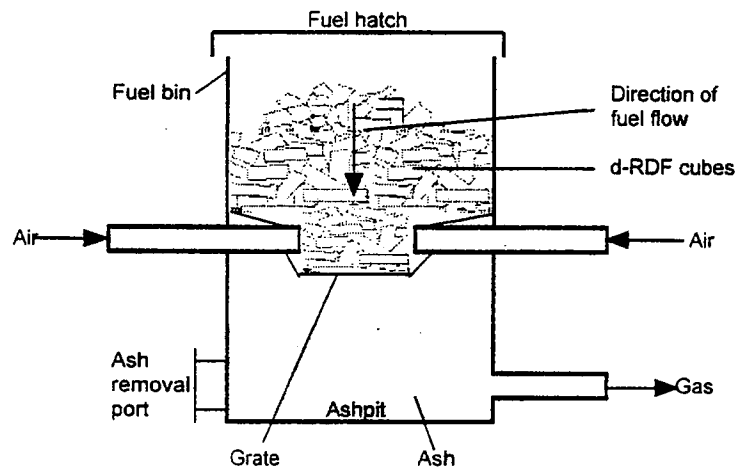
The vertical fixed bed gasifier has a number of advantages over the other types of gasifiers, including simplicity and relatively low capital costs. However, this type of reactor is more sensitive to the mechanical characteristics of the fuel; it requires a uniform, homogenous fuel, such as densified RDF. As shown in Figure 5-3, fuel flows through the gasifier by gravity, with air and fuel flowing concurrently through the reactor. The end products of the process are primarily low-Btu gas and char.

Gasifiers have the potential to achieve low air pollution emissions with simplified air pollution control devices. The emissions are comparable to or less than the emissions from excess-air combustion systems employing far more complex emission control systems.

Vertical fixed bed gasifiers can also be operated with pure oxygen as an oxidant instead of air. Operation with pure oxygen results in the production of a medium-Btu gas with an energy content of 270 to 320 Btu/ft³. Such a system was developed by the Union Carbide Corporation and marketed as the Purox System. As shown below, the system consisted of the reactor, a minimal front-end system (shredding only), gas cleanup train (electrostatic precipitator, acid absorber, condenser, and water purifier), and an oxygen plant. The gasifier operated at relatively high temperatures (2,600°F to 3,000°F), producing a molten slag as a by-product. Although a pilot plant was successfully tested on a variety of wastes, including MSW and sewage sludge, the Purox System is no longer in commercial production.

B. Horizontal Fixed Bed

The horizontal fixed bed gasifier has become the most commercially available type. A horizontal fixed bed gasifier consists of two major components: a primary combustion chamber and a secondary combustion chamber. In the primary chamber, waste is gasified by partial combustion under controlled conditions, producing a low-Btu gas, which then flows into the secondary combustion chamber. In the second chamber, it is combusted with excess air which produces high-temperature (1200°F to 1600°F) gases that can be used to produce steam or hot water in an attached waste heat boiler. This system produces lower particulate emissions than conventional excess-air combustors.



Source: Integrated Solid Waste Management, Tchobanoglous/Theisen/Vigil

Schematic diagram of batchfed vertical fixed-bed gasifier

Figure 5-3

Los Angeles County Countywide Siting Element

Horizontal fixed bed gasifiers are commercially available from several manufacturers in standard sizes ranging from 0.05 to 4.2 tons/hr capacity.

C. Fluidized Bed

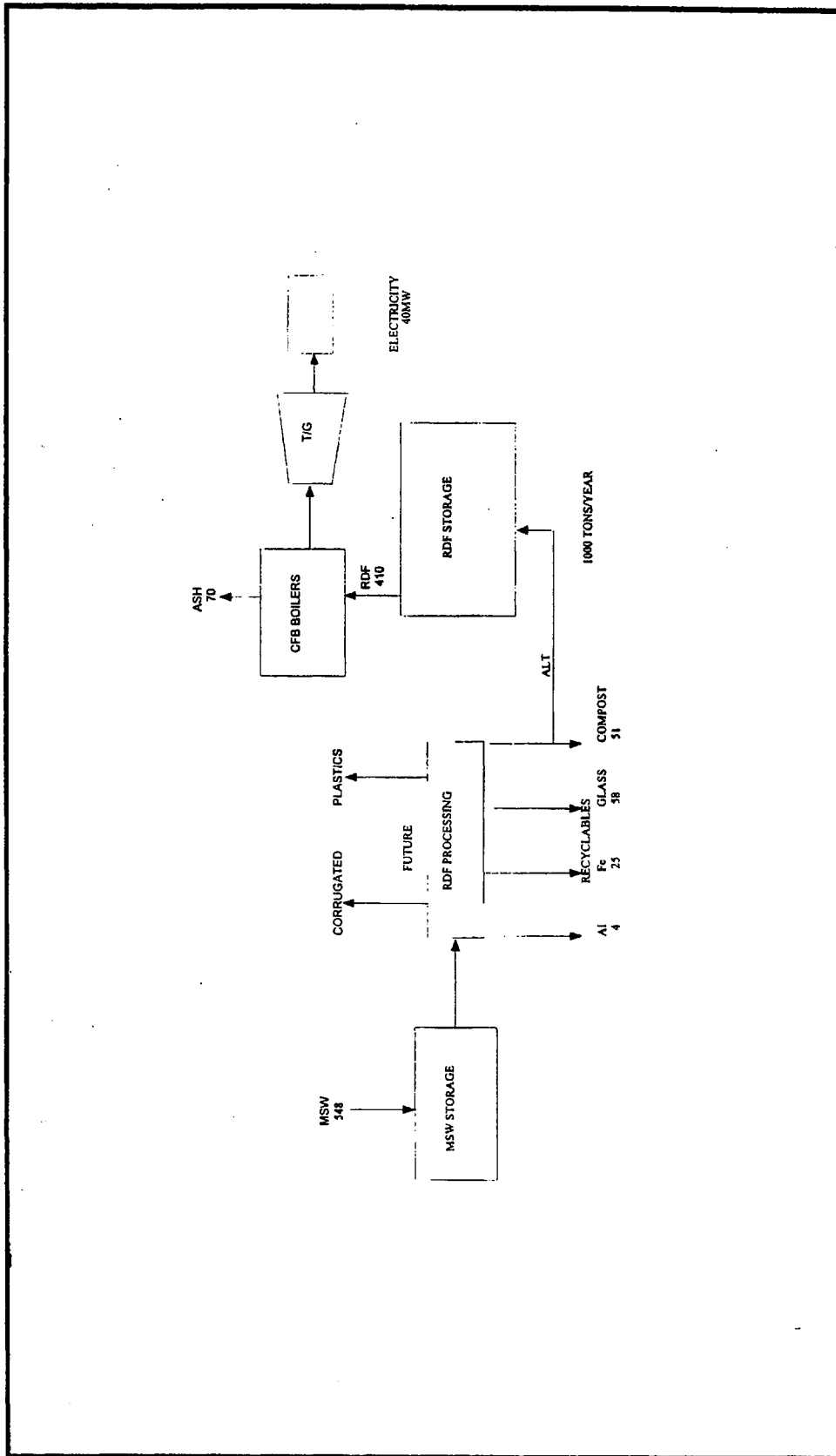
As indicated in Section 5.4.3.2.1 (C), fluidization is a process in which a bed of particles is converted to a fluid state by means of an upward flow of gas (or liquid).

With minimal modifications, a fluidized bed combustion system can be operated as a gasifier. Several pilot-scale tests have been conducted with solid waste as fuel. A 1-ton/hour prototype fluidized bed gasifier fueled by RDF has been demonstrated in Kingston, Ontario. A dual fluidized bed gasifier has been developed in Japan. The system employs two fluidized beds, one for fuel and one for char combustion, using the sand as a heat transfer medium between the two beds, producing medium-Btu gas. Also, a fluidized bed gasification system using RDF has been constructed in Italy. The system produces low-Btu gas, which is used in boilers for the production of steam and electricity.

Experience with full-scale and pilot-scale units has shown that reliable results with mass-fired gasifiers have not been achieved. Some form of RDF processing to remove metals and other inerts is required, both to improve performance of the reactors and to reduce air emissions. Except for the modular combustion units, gasification systems cannot be considered a viable commercial technology at this time.

D. Circulating Fluidized Bed Gasification.

- i. Termiska Processor of Sweden (TPS). The manufacturer of this technology, indicates that the process converts solid waste into a clean fuel gas which can either be burned locally or piped to a variety of users. Southern California Edison is working with this technology and has developed an Advanced Integrated Recycling Demonstration Project which would utilize RDF through the fluidized bed gasification process. The goal of the proposed demonstration facility is to process 200 tons per day of refuse at a Materials Recovery Facility (MRF) to yield 150 tons per day of RDF. In 1992, a commercial, two-bed unit was installed in Greve-en-Chianti, Italy. It had a combined capability of 30 MW to gasify 100 percent pelletized RDF fuel.
- ii. Robbins Resource Recovery Facility. This facility utilizes a circulating fluidized bed (CFB) system developed by Foster-Wheeler Power Systems Corporation (see Figure 5-4). The system burns shredded RDF to produce steam used to generate electric power. The 1,600 ton-per-day day facility is located in the Village of Robbins, in the southern suburbs of Chicago. The facility began operation in January 1997.



Source: Heat Engineering Spring 1995

Robbins Flow Diagram

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Figure 5-4

The facility consists of two material recovery and fuel preparation processing lines, two RDF-fired CFB combustion systems, two air pollution control systems and a single turbine generator designed to produce 41.5 MW (net) of electric power for sale to Com Ed. The facility is designed to operate 24 hours per day, 365 days per year, with redundancy to permit continuous processing of solid waste during periods of equipment maintenance.

The material recovery and fuel preparation system is designed to separate and recover for recycling 25 percent of the solid waste delivered to the facility. The system utilizes primary and secondary trommel screens, magnetic separators, several manual picking stations and shredders to produce an RDF of uniform size. The system is designed to remove 90 percent of the ferrous metals, 65 percent of the aluminum cans, and 90 percent of the glass from incoming waste.

In the CBF boilers, combustion air will be blown upwards through a grate of nozzles in the bottom of the vertical water cooled combustor chamber. RDF and bed material (sand) will be fed through the sidewalls of the combustor and become entrained in the upward flow of hot combustion gases. Sufficient upward air velocity will be used to insure that the fuel and air are vigorously mixed and turbulently suspended in a fluidized bed as it burns. Energy in the form of superheated steam will be recovered in a waterwall boiler.

The system employs a fluidized bed with a cyclone separator that spins out the heavier, larger materials. These are recycled back into the system until they are reduced in size. A boiler efficiency of 81 percent is claimed with this technology. Ash will be used in the fluidized bed system. The fluidized bed allows a large thermal mass to circulate between the furnace and the cyclone. The turbulent mixing and the prolonged gas residence time should also reduce the denovo formation of dioxin and other organic compounds.

The combustor operates at 1525° to 1675°F. The lower furnace temperatures should reduce the formation of NO_x emissions.

The system pretrommels the incoming waste to improve separation of glass, ferrous, and aluminum. This lowers shredding maintenance and loading on the shredder reducing power consumption. Glass is also separated out along with compostable material. The recycling front end uses electromagnets, sizing, specific gravity, and eddy currents to remove recyclables. The ash is currently landfilled.

Fifty-five MW of power are produced by the system, eleven of which are used in-house. The remainder is sold back to power companies. The tipping fee is approximately \$55 per ton of solid waste.

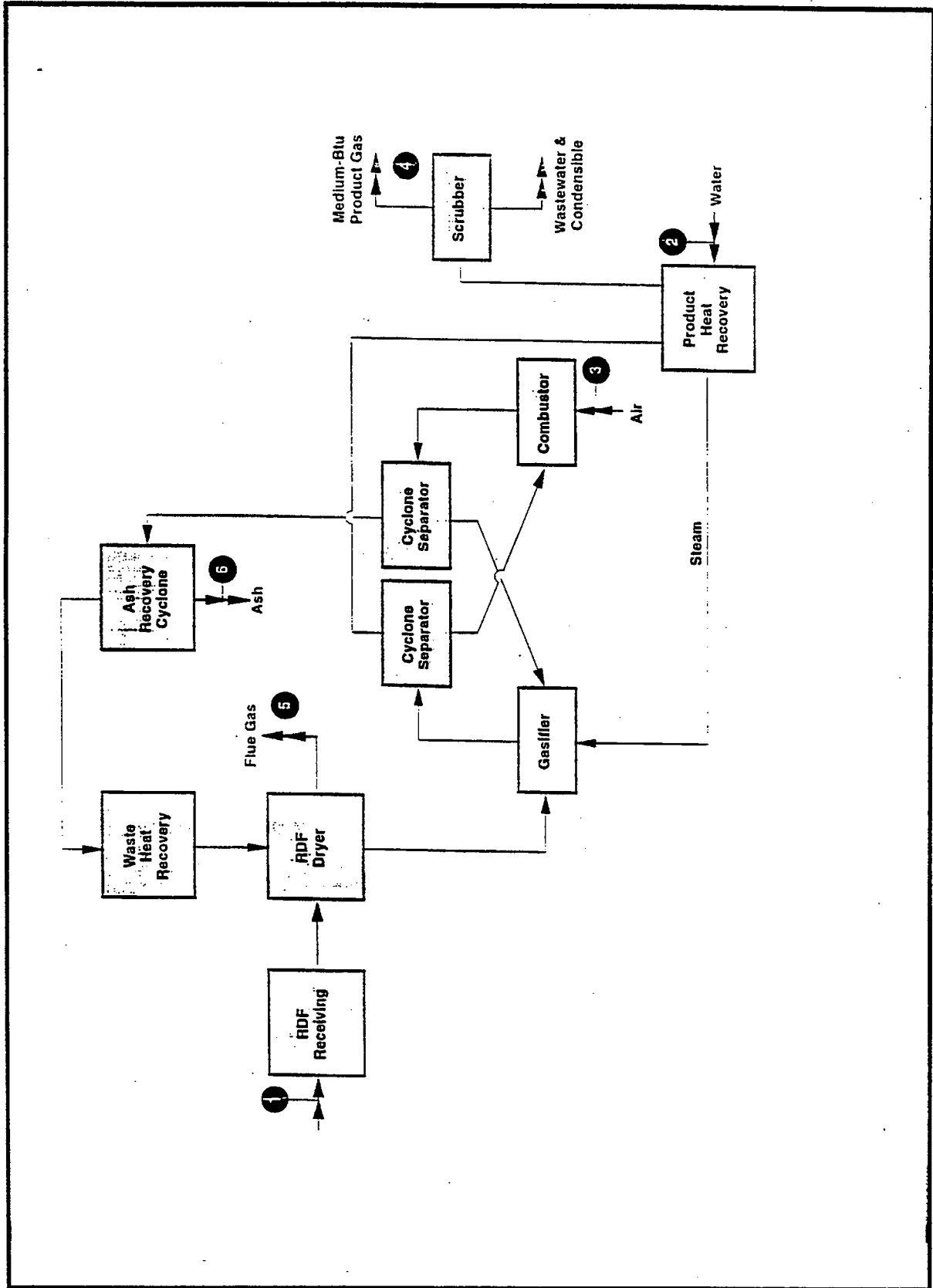
The capital cost was \$385 million. This is the first large-scale facility using this technology in the world. As of mid-December 1996, the recycling front end was operating without incident. The boilers have been tested to 110 to 115 percent of load. The first waste burning test period has taken place. Air emissions are lower than expected. The turbine manufactured by Dresser and Rand has been tested to full load. Ash has tested below permitted levels. The final trial runs are scheduled for March 1997.

- iii. Biomass Gasification/Battelle High Throughput Gasification System (BHTGS). The BHTGS is an indirectly heated, two-stage process that uses circulating fluidized bed gasifier and combustor as reactors (see Figure 5-5). In a high-throughput gasifier, RDF or other biomass feedstock is gasified in a CFB to a medium-heating-value gas (500 to 600 Btu/sft³) using steam without oxygen as the fluidizing medium. The biomass can be used as a feedstock for power generation systems. Currently, biomass resources include residue from the forest products industry, urban wood waste, food processing waste, and tree trimmings. Different types of biomass systems are possible and include direct combustion of the fuel, the use of gas turbines, or the use of fuel cell high-efficiency technologies like gasification. A commercial scale two-chamber fluidized bed biogasification facility using wood is being constructed in Burlington Vermont. The developer is Future Energy Resources Corporation, a Battelle licensee in Atlanta, Georgia. Shredded wood is volatilized in a fluidized sand bed at 1800° to 2000°F. A char is left which is used to reheat the chamber. The current system is expected to process a nominal amount of 200 tons per day with the maximum capacity expected to reach 800 tons per day with further testing. The total cost of the present system is about \$13 to \$14 million. The expected completion date for the Burlington, Vermont facility is March 1997. The initial testing and final trial runs are expected to be completed in May 1997.

There are several advantages to the Battelle system.

- a. The medium Btu gas is directly substitutable for natural gas.
- b. The gas Btu value is constant
- c. The process does not need an oxygen system
- d. The gas does not need to be cleaned while hot. This decreases capital investment and process complexity.

A prototype has been tested with RFD. Under sponsorship of the U.S. Department of Energy, Battelle has completed a preliminary investigation of gasification of prepared municipal solid waste RDF to produce a medium Btu gas without oxygen in its High Throughput Gasification System. A



Source: Evaluation of Gasification and Novel Thermal Processes for the Treatment of Municipal Solid Waste August 1996 National Renewable Energy Laboratory TP-43021612 U.S. Dept. of Energy, Golden Colorado

Biomass Gasification/Battelle High Throughput Gasification System Process Diagram **Figure 5-5**
Los Angeles County Countywide Siting Element

successful test program was conducted in a 12 tons/day Process Research Unit to provide data on product gas composition and production rates possible with the RDF feedstock. Data generated during the experimental program were used in the generation of a process conceptual design. A preliminary economic evaluation based on this design indicates that the Battelle process provides significant economic benefits when compared to mass burn technologies. Additionally, gasification under zero oxygen conditions produce fewer pollutants thus simplifying pollution control.

E. Indirectly heated fluidized Bed

Pulse Enhanced and Steam-Reforming Technology. The Manufacturing and Technology Conversion International, Inc., (MTCI) Steam Reforming Process is an indirectly heated fluidized bed reactor using steam as the fluidizing medium. MTCI has licensed Thermochem, Inc., to apply its Pulse Enhanced and steam-reforming technology to the gasification of RDF, paper mill rejects, agricultural wastes and biomass fuels. The gas produced is a clean hydrogen rich medium with a medium heating value (374 to 448 Btu/ft). The process does not use combustion of the waste material but rather heats the waste indirectly in combination with a fluidized bed and a process of steam reforming. This results in a separation of the inorganic portion and a gasification of the organics. The organic waste fed to the fluid bed steam reformer reacts only with the steam in a reducing atmosphere, producing the fuel gas. The Pulsed Enhanced heat generates an oscillating flow of heat to a bundle of pipes that pass through the fluidized bed gasifier. It is the pulsing action that creates the turbulence to enhance the heat transfer between the gases in the tube and the RDF. As the RDF is not burned, emissions are almost negligible and it is expected the process will pass EPA New Source Performance Standards. The residue meets EPA leachability standards for disposal as a nonhazardous waste. Solid waste has also been tested in the demonstration unit.

A demonstration unit was operated in Ontario, California, from 1991 to 1992 using cardboard waste from a paper mill. This unit has been relocated to Baltimore, Maryland, and has since processed coal, wood chips, and straw. A five-heater fluid bed steam-reformer has been built in New Bern, North Carolina to process black liquor from the local paper mill (120 tons/day). Another pilot unit has been built in India to process black liquor.

In a recent engineering study, Thermochem, Inc., identified the major components for the steam-reformer as follows:

- Fluidized bed reformer with pulsed heaters to dry the RDF
- Waste-heat recovery steam generator in the product gas stream to generate steam for fluidization
- Feedstock dryer using heat from product gas
- Quench system to cool the gas and remove the entrained particulates

- Char handling system
- Steam superheater and air heater installed on the pulse combustor flue gas

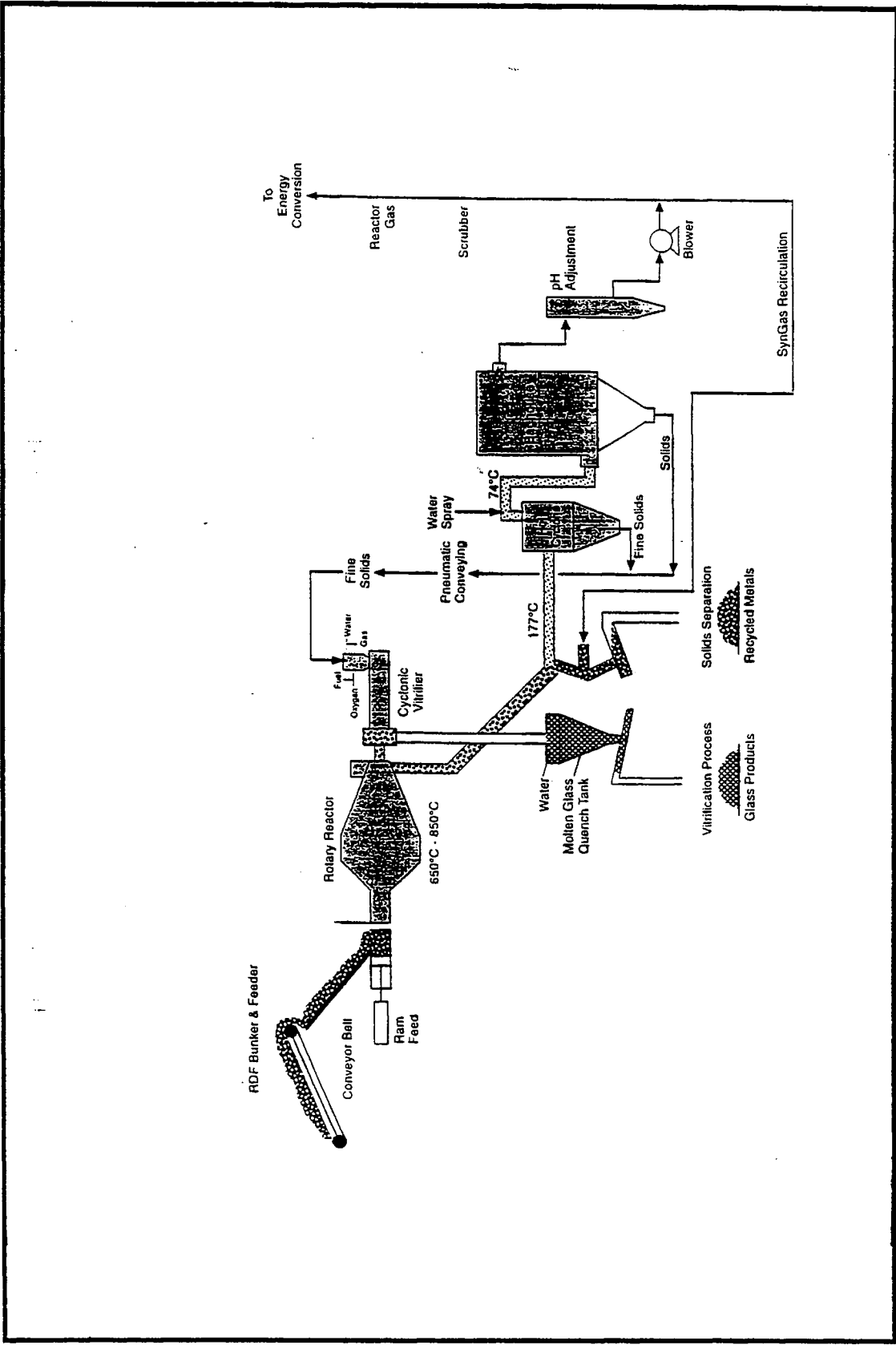
The system has been tested by the California EPA and the Federal EPA and has been shown to destroy dioxin and furans. NO emissions are also shown to be low. The system is modular and has low maintenance and operating costs. Total capital costs are approximately \$92 million for a 650 tons/day RFD unit.

F. Rotary Kiln

- i. The Proler SynGas Process. This is a patented gasification technology that reforms hydrocarbon-containing wastes into a reactor gas (see Figure 5-6). It requires no processing before loading. A 50 tons/day demonstration plant has been built in Houston, Texas. Although the process was originally developed for gasification of automobile shredder waste, limited runs have demonstrated its suitability for gasifying solid waste. The process accepts preshredded material and produces a fuel gas suitable for power generation. The residue is discharged in the form of commercially useful vitrified by-products as well as wastes acceptable for landfills. A commercial plant is proposed for large-scale gasification of solid waste. The present demonstration plant feeds preshredded waste into a kiln-like reactor. A two-stage process is used to produce a gas from the solid waste.

In the first stage, the waste is fed into a rotary kiln with a bed depth of about two feet and a retention time of about one hour. Here the water and hydrocarbons are devolatilized at a temperature of 650°C to 850°C in a reducing atmosphere. As the feed material is heated and gasified, the raw gas and solids are discharged into the Hot Pneumatic Separator (HPS). The larger solid constituents are removed here by a series of baffles. The raw gas is cleaned in the hot cyclone followed by a baghouse and scrubber. In the second stage, the fines are separated out and the synthetic gas is used to vitrify the minerals and oxidize the carbon. The reactor is fired with the exhaust from a vitrifier that uses fuel gas, char carbon, and oxygen to melt the mineral residue. Fuel gas is produced with a medium heat content which can be used for power generation. The residue is a product that can be used by the tile industry.

The synthetic gas produced by this process can also be made into several other products. If the gas is used to make electricity, then one has produced a gas with the same value as methane. But the syngas can also be made into several other products with technology that is commonly in use today, for example ethanol, methanol, acetic acid, and ammonia.



Source: Evaluation of Gasification and novel Thermal Processes for the Treatment of Municipal Solid Waste August 1996 National Renewable Energy Laboratory TP-43021612 U.S. Dept of Energy, Golden Colorado

**Proler SynGas Schematic Process Diagram
Los Angeles County Countywide Siting Element**

Figure 5-6

- ii. Thermoselect, Inc. The Thermoselect process is a method of gasifying solid waste and industrial raw wastes (see Figure 5-7). The Thermoselect system uses commingled solid waste and "selected" industrial waste to produce reactor gas, vitrified soil granules, elemental sulfur, and sodium salts. No liquid effluent is discharged into the environment. Process water is treated and recycled. In addition, the process is intended to minimize both the formation and emission of particulates, nitrogen oxides, and other pollutants.

Gasification is achieved at a high temperature. The mixture of solid refuse and char reaches 800°C (1472°F) during the end of the first discharge period known as the degasification period. The gasification products are then retained in a reactor at 1200°C (2192°F) for more than 4 seconds. The resultant gas is then quenched to 900°C (194°F). This combination of time and temperature is sufficient to destroy complex organic compounds produced by the gasification process. The raw gas is then cleaned in a gas purification system that uses iron chelator to remove the hydrogen sulfide. The system is a closed loop system and does not release refuse-developed gases into the environment. The only emissions released are from the combustion of the synthetic gas. The manufacturer claims no ash residue is produced. The heavy metals are separated and removed by a vapor quench hydrolyzing the heavy metals. The resulting metal hydroxides are then precipitated out using sodium sulfite. The metal residues are very high in zinc which can be smelted out and sold.

The demonstration plant is located at Fondotoce, Italy in the southern foothills of the Alps. The operating capacity is 106 tons/day with an average tipping fees estimated to be \$97.15 per ton. Test results indicate only minute amounts of organic compounds in the reactor gas. Dioxin levels in this process are controlled by keeping oxygen levels low during the quenching process and allowing the chlorine to react with the water. Only trace amounts of polychlorinated p-dioxin and polychlorinated dibenzo furan were detected. The system is expected to comply with U.S. EPA regulations. The demonstration plant has gone through 15,000 hours of operation 5 days per week processing unshredded municipal and industrial wastes. The system is stated to be very efficient, with efficiency rates of 38 to 40 percent compared to incineration rates of 28 percent.

Typical tipping fees in the United States are estimated to be \$65 to \$80 per ton. A 10-ton per hour unit is the only size currently produced and multiples of this are then built to required capacities. Two units producing 500 tons/day are estimated to cost \$100 million with a six-unit facility estimated to cost \$250 to \$275 million. A 2400-ton/day operation is currently in the design and construction stage and is estimated to cost \$350 million. Construction of a commercial plant has begun in Karlsruhe, Germany and is expected to be completed in December 1998.

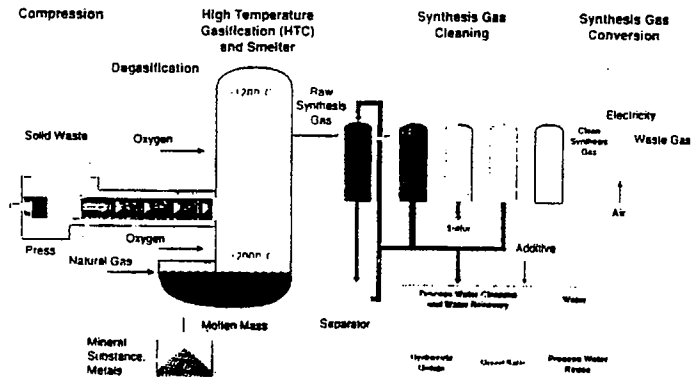
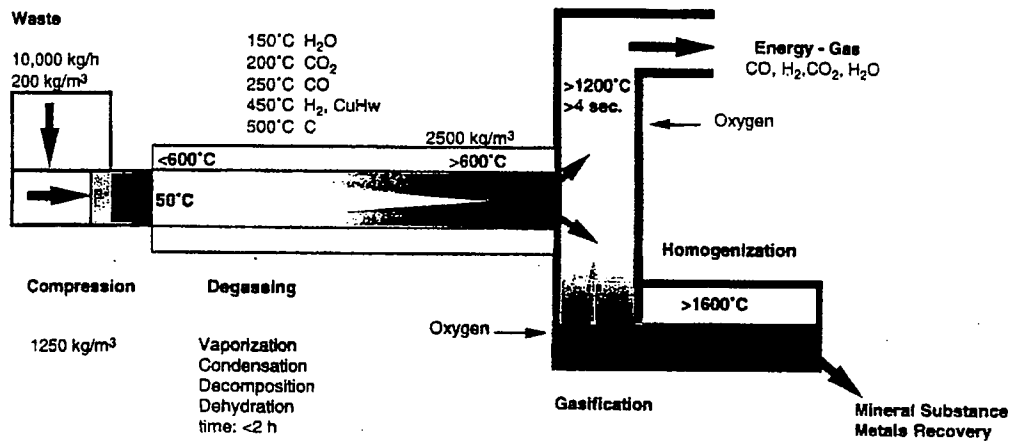


Figure 2: Process Flow

THERMOSELECT PROCESS - ENERGY AND RAW MATERIAL RECOVERY



95-301

Source: The Thermoselect Solid Waste Treatment Process Thermoselect Inc Troy, Michigan.

Thermoselect Schematic Process Diagram

Figure 5-7

Los Angeles County Countywide Siting Element

- iii. **Kocee Waste-to-Energy Gasification System:** The Kocee gasification system is an integrated approach to waste resource recovery utilizing recycling, composting, and waste-to-energy or gasification technologies. Global Waste and Energy, Inc., of Alberta, Canada produces a gasification system using RDF. A 50-ton per day demonstration unit is in operation in Alberta, Canada. The company is starting construction of a 1,500-ton-per-day facility in El Salvador with contracts pending in Guatemala, China, and France.

The process includes a material handling (presorting) front end used for recycling incoming wastestream and an optional composting or thermophilic digestive unit, a RDF shredding unit and a dual stage gasification and burning system. Shredded RDF is fed into the primary gasification chamber, a circular inverted cone at 1600°F. This is turned slowly at 4 revolutions per hour with an air supply at 50 percent of stoichiometric requirements. This produces a low Btu gas containing 15 to 20 percent CO, 30 percent hydrogen, 10 to 15 percent methane ethane and propane (Btu content 350 Btu/cubic foot). This gas is sent to the secondary stage where it is burned. Dioxin and furans are degenerated by the hydrogen in the primary stage to methane. This phenomena is particular to gasification systems and is well documented. Dioxin and furans are said to be ½ of German limits without further abatement. The secondary chamber burns the fuel at 40 percent in excess of stoichiometric requirements to bring CO levels to non detect levels (<3 my per cubic meter). The energy from the secondary chamber is used to turn turbines on for boiler heat.

The bottom ash goes through a sintering process which bonds heavy metals to aluminum and silica to prevent leaching. This allows the process to meet German requirements for use as cement and road paving. The bottom ash remaining is 9 percent by weight of the total incoming waste. Fly ash after scrubbing is treated with a molecular bonding technique to bond the heavy metals as insoluble sulfide.

Tipping fee is estimated to be \$30 to \$35. A 1,500-ton-per-day plant is estimated to cost \$125 million with a 10 to 12 acre-footprint.

5.3.2 Biological/Chemical Conversion Processes

5.3.2.1 Biosolids Injection Technology

Biosolids are primarily organic solids (treated sewage sludge) derived from a municipal wastewater treatment plant that meets the requirements specified in 40 CFR Parts 503.13(b)(1)(I), 503.33(a)(1).

Biosolids Injection Technology (BIT) is an innovation in cement kiln NO_x control (see Figure 5-8). BIT was developed by the Cement Industry Environmental Consortium (CIEC).

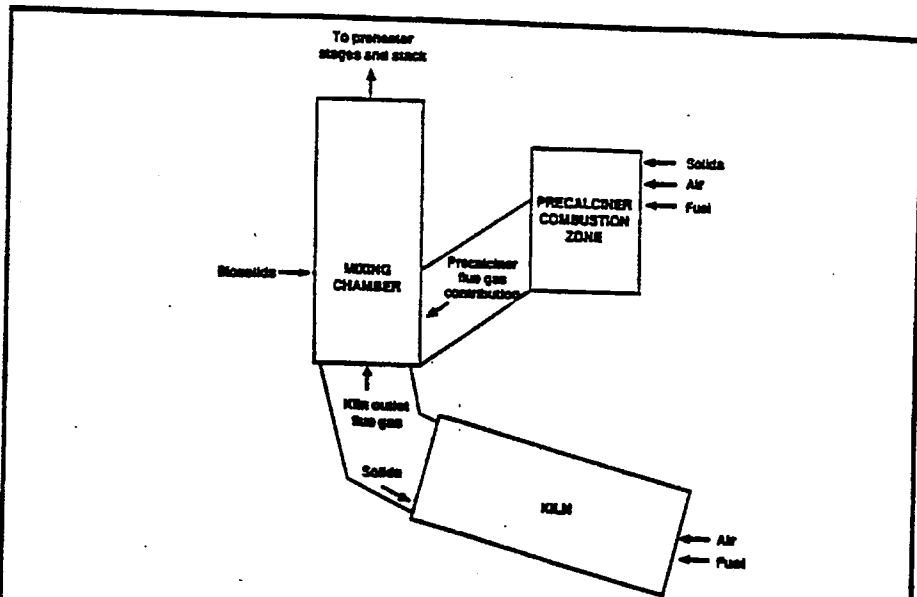


Figure 1. Biosolids Injection Location at Mitsubishi Cement

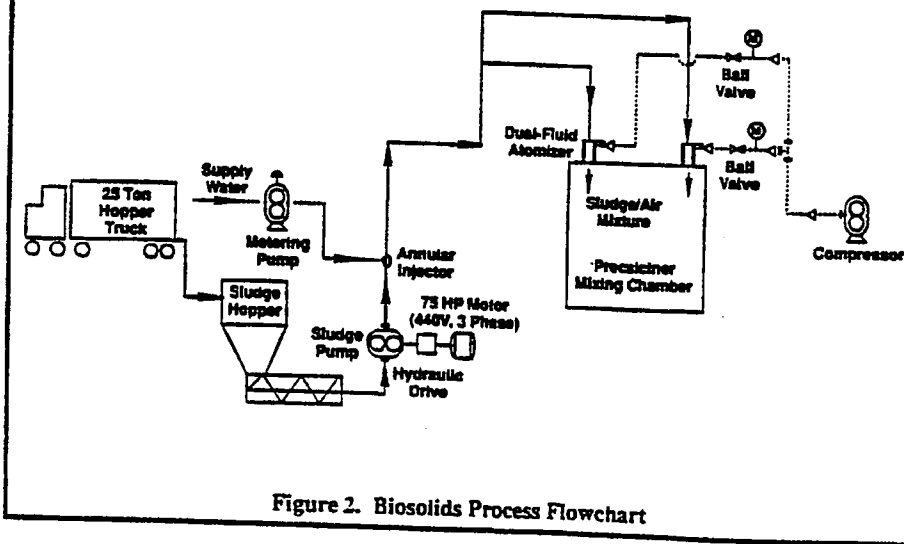


Figure 2. Biosolids Process Flowchart

Source: Biosolids Injection Technology: An Innovation in Cement Kiln NO_x Control H. O. Biggs

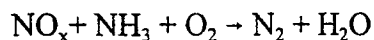
The CIEC was formed to develop new and innovative NO_x control technologies which might be used to meet future California NO_x emission limitations. The basic principle of BIT technology is to utilize the natural occurring ammonia content of dewatered biosolids, which are generated at municipal wastewater treatment plants, as a reagent to effect selective non-catalytic reduction (SNCR) of NO_x. Dewatered biosolids are injected into the kiln system at a location where SNCR reaction is favorable. It appears that preheater/precalciner kiln designs are best suited for BIT application.

BIT development has progressed through the initial feasibility study and two phases of demonstration testing. Phase I demonstration testing was completed in 1994 and was designed to prove the concepts and principles on which BIT is based. Phase II testing began in early 1995 and is still underway. All demonstration testing was performed at Mitsubishi Cement Corporation's Cushenberry plant in Lucerne Valley, California. Based on favorable results generated thus far, the CIEC has filed BIT patent applications.

Biosolids used in the process are from wastewater treatment plants after dewatering (in the same form as they are shipped to landfills and other disposal options). Since biosolids are mechanically dewatered without heat input, the solids content varies between 16 and 30 percent (moisture content of 84-70 percent). The dewatered biosolids are obtained from several wastewater treatment facilities in the greater Los Angeles area (including the Los Angeles County Sanitation Districts' Carson plant) and are currently being disposed at the Mitsubishi Cushenberry plant in Lucerne Valley to reduce Nitrogen Oxide emissions.

The BIT technique has resulted in a 50 percent reduction in smog-producing Nitrous Oxide, while consuming approximately 500 tons of biosolids a day. On an annual basis, the Mitsubishi Cement Corporation's Cushenberry plant can consume about 155,000 tons of sewage sludge, equivalent to 10 percent of the annual wastewater sludge generated by Southern California's sewage treatment plants.

The principle of NO_x reduction is the reaction between the NO in the flu gas with the ammonia (NH₃) present in the biosolids. The chemical reaction is as follows:



The following conditions affect BIT's performance

- Temperature (1700°F)
- Residence time (greater than 0.5 seconds)
- Inlet NO_x concentration
- Inlet CO concentration
- Molar ratio of NH₃/NO
- Mixing effectiveness

Although the equipment installed at the Mitsubishi Cushenberry Plant is temporary, that is, for demonstration only, operating experience has been satisfactory.

5.3.2.2 Hydrocarb Gasification

The Hydrocarb process was originally conceived at the Brookhaven National Laboratory and further developed by the Hydrocarb Corporation. The process involves three steps: the hydrogasification of biomass; the pyrolysis of methane into hydrogen and carbon; and the catalytic reaction of hydrogen and carbon monoxide into methanol (see Figure 5-9). Examples of the biomass feedstocks are wood, waste products, sewage sludge, and municipal solid waste.

Acurex Environmental Corporation is currently building a bench scale methanol production plant, using biomass and natural gas as feedstocks with the goal of verifying the feasibility of the Hydrocarb system at the University of California, Riverside. Completion of the project is expected in late 1997. The capacity of the U.C. Riverside system is to be 50 lbs per hour. This project is being sponsored by the U.S. EPA and the South Coast Air Quality Management District. A pilot plant for the hydrogasification of brown coal was built and operated by Rheinbraun near Cologne, Germany (Brungel 1988) with a capacity of 230 tons per day to convert coal into methane. A Hydrocarb plant with a capacity of 100 tons per day using biomass as feedstock is planned in Hawaii (Takahashi 1990).

The process is basically a three-step process. First, the hydrogenation of the biomass to form a methane rich gas and ash, the thermal decomposition of the methane rich gas to form carbon black and hydrogen gas and carbon monoxide, and then hydrogen and carbon monoxide are catalyzed to produce methanol. The system is run in a reducing atmosphere under pressure in a closed system. Tires, plastic, and paper can also be used as feedstock.

5.3.3 Economic and Environmental Issues Relating to Transformation Technologies

The emerging transformation technologies have the potential to revolutionize the way solid waste is managed in Los Angeles County. Some of them offer the potential to substantially reduce some of the air quality impacts currently associated with transformation facilities. However, the following issues should be carefully considered when evaluating transformation technologies as a part of a jurisdiction's solid waste management strategies.

Cost and environmental concerns to residents are factors which ultimately determine where jurisdictions decide to dispose of their solid waste. Total system costs, which typically include collection; transportation; processing; operating and capital investments, need to be evaluated by jurisdictions to determine the economic feasibility of using a particular disposal facility or building a particular transformation facility. A tipping fee, the rate charged for each ton of solid waste disposed, is a major factor to jurisdictions or entities evaluating the option of siting facilities which utilize alternative disposal technologies. The tipping fees and revenue from the sale of energy produced must be sufficient to cover capital and operating costs. Even if tipping fees at these facilities at a given time were comparable or lower than fees charged at landfill disposal facilities, jurisdictions must consider the impact of additional costs that may be incurred if the wastestream fluctuates below the level needed to keep the plant running. Furthermore, environmental issues are recognized as critical to

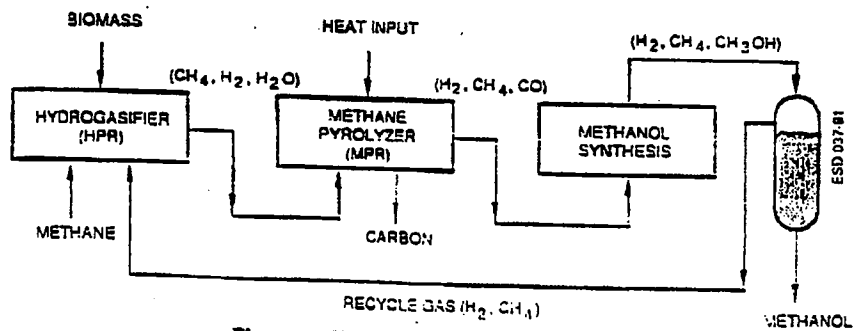


Figure 1. Hydrocarb process block diagram

Source: Treatment of Municipal Solid Waste By the Hydrocarb Process, Acurex Environmental Corporation, Stephan Unnash

Hydrocarb Process Block Diagram

Figure 5-9

Los Angeles County Countywide Siting Element

the viability of transformation technologies and processes. While air emissions dominate the "political" assessment of a given process, problems with all effluents and environmental consequences must be resolved as part of the permitting process.

Some of these issues regarding the effect of economic and environmental factors in alternative disposal technologies and processes for the treatment of solid waste was detailed in a report commissioned by the National Renewable Energy Laboratory, U.S. Department of Energy, located in Golden, Colorado, entitled "Evaluation of Gasification and Novel Thermal Processes for the Treatment of Municipal Solid Waste, August 1996 (NREL/TP-430-21612)". According to the report, low energy prices affect transformation technologies by reducing the flow of revenue from the sale of electricity or steam. During the 1980s and up to the present, the trend in energy prices has been downward. Consequently, the effective break-even tipping fee for proposed facilities which utilize alternative disposal technologies has increased, making financing and community acceptance more difficult.

Environmental issues have also affected solid waste combustion. Initially, pressure was focused on visible emissions. The Clean Air Act and its Amendments drove the industry away from simple refractory enclosures and toward water wall boiler and combustion industry, and to the solid waste incineration market. In 1977 the pollutant "dioxin" emerged as a new issue. Admissions of acid gases-HCl and SO_2 , nitrogen oxides (NO_x), and toxic elements also became of increasing concern. Other interests focused on ash.

Although environmental concerns have not driven thermal processing out of business, they have resulted in significantly higher costs, increased system complexity, and long delays in moving projects through the public review and regulatory approval processes. Interestingly, the situation in Europe is similar to that in the United States, but the result is different. Recent legislation in Germany, France, and the Netherlands has mandated an end to raw solid waste landfilling. This legislation will help to further emphasize the role of thermal processing in solid waste management, where solid waste turned into energy has already assumed an important position. However, driven by stringent air emissions limits in some European nations, waste management costs in Europe are very much higher than in the United States.

Several new or enhanced technologies to thermal processes of solid waste are now well established. One class, commonly referred to as Waste-to Energy plants, burns waste in the same physical form as it is generated (mass-burn incinerators), which is coupled with elaborate back-end air and residue treatment. Another burns wastes alone or with fossil fuels after preprocessing of the waste to a refuse-derived fuel (RDF).

Waste-to-energy plants are well-proven combustion processes, and beyond these, a new technology class has emerged - refuse gasification. During this process, the organic fraction of solid waste is heated to drive off a gas with a substantial fuel value. This gas can be cleaned and burned in a gas engine or gas turbine to generate electricity. Emissions data generally show very low rates for dioxins, acid gases, and other problematic pollutants.

The processes studied in detail in the report, identified by the name of the developer, are:

- Energy Products of Idaho (EPI)
- TPS Termiska Processor AB
- Proler International Corporation
- Thermostelect, Inc.
- Battelle
- Pedco, Inc.
- ThermoChem, Inc.

Of these seven emerging technologies, two - Energy Products of Idaho and Pedco Inc., - use full combustion, but in innovative ways. The other five processes - TPS Termiska Processor AB, Proler International Corporation, Thermostelect Inc., Battelle, and ThermoChem Inc. - use gasification methods followed by cleanup and use of the fuel gas. In niche market sectors and in the broader market, the five gasification technologies studied during this project are emerging as "commercially-ready" alternatives.

The penetration of the thermal processing market by advanced technologies is driven by their environmental, economic, and performance acceptability. From an environmental viewpoint, the report's project team saw the seven technologies as a sound response to the regulatory challenges of the revised New Source Performance Standards (NSPS) and the Maximum Achievable Control Technology (MACT) rules under the federal Clean Air Act. The environmental characteristics of the seven processes are summarized in Table 5-1.

In the United States, economics has always been a critical and probably driving factor affecting the penetration of thermal processing technology in solid waste practice. Tables 5-2a and 5-2b summarize, in metric and English units respectively, the economic data collected and developed in the report's study. Capital costs of most of these processes are comparable to the \$110,000/Mg/day (\$100,000/ton/day) typical of contemporary mass burn systems. The net operating costs for the gasification technologies, which are equivalent to the break-even tipping fee, are comparable to those for owner-operated mass burn facilities. The revenue stream from selling energy continues to be critical to overall economic acceptability.

Results are less clear concerning "performance acceptability." Most, except for the EPI and Thermostelect processes, require an RDF feed. Historically, most RDF facilities have incurred substantial post-construction rework, capital investment, capacity downrating, etc., and landfills are still required. Many systems in this study have significant development tasks ahead of them. Unfortunately, the catalyst of vigorous market activity to push this development and to foster risk-taking is weak. Further, many systems are quite complex. This complexity presents some problems when seeking acceptance by client communities, by regulatory authorities, and from financial and engineering entities involved in concept selection and project implementation.

Table 5-1 Environmental Comparison of Developing Technologies

Process Name	Thermal Treatment Technology	Air Pollution Control	Water Pollution Control	Residue Treatment or Disposal
EPI, Inc.	Bubbling Fluid Bed Combustor	Lime Spray Dryer Absorber, Fabric Filter, Selective NonCatalytic Reduction, Activated Carbon Injection	None: Dry System.	Landfill
TPS Termiska AB	Circulation Fluid Bed Gasifier with Dolomite Craker	Scrubbing of Fuel Gas to Remove Particulate Matter, Condensable Organics, and Acid gasses, NO _x ¹	Cleanup of Scrubber Liquor. Not specified. ²	Landfill
Proter International	Rotary Reactor Gasifier and Cylonic Ash Virtifier	Fabric Filter, Wet Scrubber, NO _x ¹	Cleanup of Scrubber Liquor. Not specified. ²	Proposed Sale as Virtified Aggregate; Otherwise Landfill
Thermoselect, Inc.	Raw Waste Gasifier	Acidic and Alkaline Scrubber, H ₂ S Removal, Activated Coke, NO _x ¹	pH Adjustment, Metal Precipitation, Filtration, Distillation.	Proposed Sale as Virtified Aggregate; Otherwise Landfill
Battelle	Circulating Fluid Bed Gasifier and Combustor	Wet Scrubber, NO _x ¹	Cleanup of Scrubber Liquor. Not specified. ²	Landfill
Pedco Incorporated	Rotary Cascading Bed Combustor	Lime Spray Dryer/Absorber, Fabric Filter, Selective Noncatalytic Reduction, Activated Carbon Injection.	None. Dry System	Landfill
ThermoChem	Pulse-Heated Circulating Fluid Bed Gasifier	Wet Scrubber, NO _x ¹	Cleanup of Scrubber Liquor. Not specified. ²	Landfill

1. NO_x control may be required for the gas engine or turbine combustor.

2. Details of treatment were not specified by the developer.

Source: Evaluation of Gasification and Novel Thermal Processes for the Treatment of Municipal Solid Waste, August 1996. NREL/TP-430-21612, National Renewable Energy Laboratory, U.S. Department of Energy, Golden, Colorado.

Table 5-2a Summary of Statistics for Developing Technologies (per ton quantities relate to raw MSW, metric units)

Process	Product Energy Form	Plant Size Evaluated (Mg/d _{raw})	Capital Cost (\$000)	Process Capital (\$000)	Proprietary Capital (%)	Capital Cost (\$/Mg/d)
EPI Inc.	Steam	780	79,415	28,015	35.3	101,800
TPS-Termiska Processor AB	Gas	1600	170,675	58,875	33.3	106,700
Profer International Corp.	Gas	1247	153,625	57,625	37.5	123,200
Thermoselect Inc.	Gas	1440	236,790	192,790	81.4	164,400
Battelle	Gas	849	80,532	12,532	15.6	94,900
Pedco Incorporated	Steam	800	87,067	28,167	32.4	108,800
ThermoChem Inc.	Gas	849	91,733	20,983	22.9	108,800

Process	Gross Operating Cost (\$/Mg)*	Gross Power (kWh/Mg)	Net Power (kWh/Mg)	Net Operating Cost (\$/Mg)†	Gross Heat Rate (MJ/kWh)‡	Net Heat Rate (MJ/kWh)§
EPI Inc.	85.21	1088	895	52.71	9.69	11.78
TPS Termiska Processor AB	71.84	1230	1024	38.91	8.57	10.29
Profer International Corp.	99.15	1281	1091	59.47	8.23	9.67
Thermoselect Inc.	135.31	1083	778	106.95	9.74	13.55
Battelle	79.37	1001	871	47.63	10.53	12.11
Pedco Incorporated	78.87	886	868	52.29	11.89	12.15
ThermoChem Inc.	81.17	1149	1004	44.56	9.17	10.50

*Gross operating cost/ton raw refuse - total of capital charges, insurances, labor, maintenance, and supplies before energy credits.

†Net operating cost/ton raw refuse-gross operating cost less energy credit.

‡Heat rate - factor relating the fuel value in the raw refuse (assumed at 11.6 MJ/kg as RDF) to the gross or net generation.

Table 5-2b Summary of Statistics for Developing Technologies (per ton quantities relate to raw MSW, English units)

Process	Product Energy Form	Plant Size Evaluated (t/d _{raw})	Capital Cost (\$000)	Process Capital (\$000)	Proprietary Capital (%)	Capital Cost (\$/t/d)
EPI Inc.	Steam	860	79,415	28,015	35.3	92,343
TPS Termiska Processor AB	Gas	1760	170,675	58,875	33.3	96,974
Profler International Corp.	Gas	1370	153,625	57,625	37.5	112,135
Thermoselect Inc.	Gas	1585	236,790	192,790	81.4	149,394
Battelle	Gas	935	80,532	12,532	15.6	86,130
Pedco Incorporated	Steam	880	87,067	28,167	32.4	98,940
ThermoChem Inc.	Gas	935	91,733	20,983	22.9	98,110

Process	Gross Operating Cost (\$/t)*	Gross Power (kW/h/t)	Net Power (kW/h/t)	Net Operating Cost (\$/t)†	Gross Heat Rate (Btu/kWh)§	Net Heat Rate (Btu/kWh)§
EPI Inc.	77.46	899	740	47.88	11,117	13,522
TPS Termiska Processor AB	65.31	919	748	35.37	10,879	13,362
Profler International Corp.	90.12	1059	901	54.06	9,445	11,094
Thermoselect Inc.	122.91	895	643	97.06	11,176	15,549
Battelle	71.60	827	720	42.81	12,087	13,896
Pedco Incorporated	85.16	879	717	56.47	11,376	13,938
ThermoChem Inc.	73.60	950	830	40.41	10,529	12,052

*Gross operating cost/ton raw refuse - total of capital charges, insurance, labor, maintenance, and supplies before energy credits.

†Net operating cost/ton raw refuse-gross operating cost less energy credit.

§Heat rate - factor relating the fuel value in the raw refuse (assumed at 5000 Btu/lb, 6050 Btu/lb as RDF) to the gross or net generation.

5.4 ALTERNATIVE METHODS FOR EXTENDING THE LIFE OF EXISTING CLASS III LANDFILLS

This section provides a description of various measures that could be used to optimize the use of existing Class III landfills, and thus extend their life. These measures include, but not limited to, the use of alternative materials for daily cover, landfill mining, baling, biostabilization, shredding of waste, etc.

5.4.1 Use of Alternative Daily Cover Materials

Current Federal Subtitle D (40 CFR Part 258 Section 258.21) and State regulations (Title 14, CCR Section 17682) require owners or operators of all solid waste landfills to cover disposed solid waste with at least six (6) inches of earthen materials at the end of each operating day. Additionally, the city or County in which the landfill is located may expand on this minimum requirements. Daily cover is used to control potential for vectors, fires, odors, blowing litter, and scavenging. In California, use of any material other than earthen material, for use as daily cover at a Class III landfill requires approval by the Local Enforcement Agency (LEA), and concurrence by the California Integrated Waste Management Board (CIWMB). Approval by the LEA is granted after a demonstration period (generally six months), during which time, the landfill operator must demonstrate adequacy of the proposed materials for use as landfill cover.

The CIWMB, through the Local Enforcement Agencies, has the sole authority to approve the use of any form of ADCM (i.e., green waste, foam, or geosynthetic blanket) which is granted (or denied) on a case-by-case basis. Currently, the only form of daily cover authorized by statute and the CIWMB is soil. The performance criteria for ADCMs, as required by Subtitle D, are contained in CFR 40, and in regulations adopted by the CIWMB. The regulations do not specify ADCMs, instead they establish the performance criteria for soil substitutes.

Alternative daily cover materials (ADCMs) commonly in use in 1996 include green waste, tarps (geosynthetic blankets), chemical and/ or foam compounds as daily cover at landfills to reduce the amount of soil currently being used for cover purposes. It is reported that the use of tarps, foam, or other types of ADCMs provides the same benefits as soil in controlling potential for odors, vectors, fires, and litter by covering the waste as it is disposed at the landfill face but consuming less volume than soil. Therefore, disposal capacity is conserved, and the life of the landfill is extended. Based on current estimates, the landfill waste disposal capacity may be increased by as much as 17 to 22 percent through the use of ADCMs. However, actual savings achieved may be lower since soil requirements cannot be entirely eliminated due to State, Federal, and local regulations regarding daily, intermediate, and final cover. These include specific performance standards which may limit the use of ADCMs to the sloping face of the waste cell, restrictions on the use of ADCMs under heavy rain, high wind, and other climatic conditions.

In Los Angeles County, most of the major Class III landfills already are using some form of ADCM, either green waste, geosynthetic blankets, or foam to conserve available air space and capacity. The Antelope Valley, Lancaster, Savage Canyon, and Bradley Landfills use geosynthetic blankets to provide daily cover to the working face of their landfills. Also, the Calabasas, Puente Hills, Scholl Canyon, and Spadra Landfills have been approved for the use of green waste as alternative daily cover (ADC) for several years, and Lancaster Landfill has recently completed its ADC demonstration project. Based on the foregoing, there may be no significant capacity savings to be acquired in Los Angeles County through the adoption of these measures since landfill operators are already using ADC materials.

5.4.2 Biostabilization/Leachate Recirculation

Biostabilization is the process whereby preprocessed solid waste is shredded and the moisture content is adjusted (preferably between 40 and 60 percent), prior to landfilling. The shredded waste is then aerated for a period of about 60 to 90 days and then compacted with standard landfill compaction equipment. Biostabilization could also be achieved by shredding waste and recirculating leachate inside the landfill to accelerate decomposition. The increased moisture content from recirculating the leachate promotes biological activity, which results in the accelerated breakdown of organic materials, increased landfill gas generation, and volume reduction. The rapid loss of solids from the decomposition process in the landfill accelerates the consolidation of the landfill materials. The resultant settlement is reported to lead to increased disposal capacity but also additional operational costs. These methods have been tested at Southwest Landfill in Alachua County, Florida, and in the City of Albany Landfill in New York. According to the Deputy Commissioner of the City of Albany, New York, biostabilization was discontinued at their landfill in 1995 due to the cost of shredding. The City of Albany also felt that heavy compaction equipment could achieve a comparable rate of compaction.

Modern Class III landfills are designed to, among other things, minimize adverse environmental impacts on water and air resources. To achieve this goal, Class III landfills incorporate into their design composite liner systems, leachate collection and removal systems, landfill gas control and monitoring systems, and an effective drainage/storm water management system. In California, leachate production is strongly discouraged in Class III landfills as exemplified by the requirements for landfill gas condensate collection, prohibition of liquids disposal, interception of surface water run-on, and the use of cover material to control infiltration. These controls are employed to reduce the production of leachate and landfill gas at landfills. Since these methods may increase gas and leachate generation, the potential for adverse impacts on air and water resources would also increase.

5.4.3 Landfill Mining/Reclamation

Landfill mining/reclamation is a process by which solid wastes previously landfilled are excavated and processed. It is the excavation and mechanical processing of previously landfilled materials or landfill airspace, to reduce the size of a landfill, to recover airspace at operating landfills, to recover recyclable materials, or to transfer material from an unlined

to a lined landfill. It is a management technology that employs conventional surface mining techniques to dig up and sort buried waste materials. However, the feasibility of mining/reclamation is site specific, depending upon local technical, economic, and regulatory factors.

One of the earliest applications of landfill mining was the mining project conducted by the Collier County (Florida) Solid Waste Management Department at the Naples Landfill. The mined area contained municipal solid waste that had been landfilled for 10 to 15 years. Between 1986 and 1992, Collier County mined more than 70,000 tons of solid waste and cover material, averaging 40 to 80 tons per hour during processing. Since Collier's application of the technology, few other domestic and international communities have applied the concept, partially because the landfill mining technology is new, and there was no well established body of experience on which solid waste planners could rely (U.S. Environmental Protection Agency, EPA/600/R-93/163, September 1993).

Landfill mining/reclamation has been used to recover recyclable material, soil, combustibles, and landfill space as well as remediating and/or upgrading of older, substandard or poorly designed landfills and extend landfill life. Using conventional surface mining techniques and specialized separation equipment, the previously landfilled material may be separated into recyclable material, combustible material, and soil/compost fraction and residual waste.

The potential environmental and economic benefits of landfill reclamation include the recovery of ferrous metal, tires, and other recyclables; the recovery of combustible material for energy generation; the reduction of impacts associated with closed landfills, the reduction in size or elimination of a landfill's footprint and the avoidance of costs associated with conventional closure and post-closure activities.

Limiting factors in landfill mining operations appear to be the cost of the operation, the depth of excavations, and the geologic conditions. Sandy soil is easier to work with and thus less costly than cohesive soil. Excavations usually continue to within 3 to 4 feet of the liner if the liner is to remain in place. If the landfill is to be completely upgraded, the complete drainage system will be removed. Odor is also a major concern especially if the landfill is five to ten years old. Foam is commonly applied to the working face to keep the odor under control. Masking agents are also commonly used for odor control. The estimated cost of the operation ranges between \$4 to \$6 per cubic yard.

The major difficulty in marketing mined materials is the quality of the recyclable material. Recycling of any of the material beyond the soil and the ferrous material is usually difficult and expensive. The soil encountered usually represents 25 to 60 percent of the total excavated material. Access to a waste-to-energy facility can also limit where excavated materials will be disposed.

The feasibility of mining or reclaiming a landfill is site specific, depending upon local technical, economic, and regulatory factors. Although this an evolving technology, it is unknown whether this method will be accepted for general use in Los Angeles County due

to public perception and opposition to landfills, air quality concerns, and State regulatory standards.

5.4.4 Balefills

Baling is a process where municipal solid waste is compacted under high-pressure into bales prior to landfilling. Typically, balefills are not operated as canyon fills, but rather as shallow trench fills. Waste is fed into baling machines and compacted into bales, then the bales are loaded onto flat bed trucks and transported to the balefill, unloaded and stacked at the working face, and finally covered. Heavy duty compaction equipment is not needed at a balefill. Balefills require only a forklift for stacking the bales and a wheel or crawler loader for placing the cover material. Because the unit volume of the baled waste is less than the volume of the waste, the amount of cover material is significantly reduced (50 to 60 percent is typical). Reported benefits include reduced transportation costs (long-haul distances), increased landfill life (9 to 23 percent), improved landfill operation (reduces need for on-site equipment and cover material requirements).

Densities typically achieved in mechanically baled waste range from 1,300 to 1,700 lbs. per cubic yard. Balefills appear to have reduced litter control problems under high wind conditions; may be more resistant to burning than uncompacted waste; may have less odor problems; and in the event of smoldering fires, these would not be as severe due to the reduced presence of oxygen. However, it should be noted that environmental controls are still needed to control drainage as well as gas and leachate generation.

Fly emergence studies indicate that baling alone without cover soil will not significantly reduce fly emergence (the balefill studied had a weekly soil cover placement frequency and no cover was applied during winter periods when the ground was frozen). Also, one of the studies indicated that placing daily or other cover on the vertical working face of a balefill is not feasible.

There are currently several large-scale balefill operations in the United States. One is the Meadowland Landfill in Hudson County, New Jersey. Another is the North Cook County facility in Chicago. The balers in place at the Hudson County facility have three-ram balers that were originally designed as car crushers. The costs for each of these were approximately \$2.3 million. Balers used at recently built balefills use smaller balers costing about \$700,000 each. Redundancy is highly recommended as maintenance and downtime are significant. Maintenance is required every six months at the Hudson County facility. According to the management at the Hudson County facility, wire is considered the weakest link in the balefill operation. A typical balefill analysis is shown in Table 5-3.

In Los Angeles County, Class III landfills, using conventional compaction methods, typically achieve densities which range from 900 to 1,400 lbs. per cubic yard, with an average of 1,200 lbs. per cubic yard. These initial average densities are not significantly lower than the reported densities typically achieved in mechanically baled waste, which range from 1,300 to 1,700 lbs. per cubic yard, since the overburden of successive layers of

solid waste material, especially in deep canyon fills, results in similar in-place densities for much of the fill. Only the uppermost lifts may benefit from mechanical baling prior to disposal. Since most major landfills in Los Angeles County are deep canyon fills, the density benefits afforded through implementation of baling prior to landfilling may be very limited. Due to the comprehensive control programs currently employed, baling would not be expected to result in substantial improvements over existing dust and litter control measures. Although decomposition of baled waste may be slower than that of unbaled waste, the inherent composition of the waste would not be altered by baling and thus, the potential for gas and leachate production over time may not be less than for unbaled waste.

Table 5-3: Baling Analysis Procedure

<p>Disposal Cost Comparison:</p> <p><u>Baler Costs:</u></p> <p><u>Step 1.</u> Determine number, size and cost of balers needed (approximately 1 baler per 300 to 400 tpd @ \$500,000/baler up to 1,200 tpd).</p> <p><u>Step 2.</u> Calculate building size and cost needed (between 12,000 sq. ft for 100 tpd and 40,000 sq. ft for 1,200 tpd @ \$35 per sq. ft and site improvements).</p> <p><u>Step 3.</u> Determine personnel/equipment needs and costs.</p> <p><u>Step 4.</u> Calculate operational (wire, power, maintenance) costs.</p> <p><u>Step 5.</u> Calculate yearly amortized costs plus operations.</p> <p><u>Landfill Costs:</u></p> <p><u>Step 1.</u> Calculate landfill development costs for a landfill and a balefill.</p> <p><u>Step 2.</u> Calculate landfill closure costs for a landfill and a balefill.</p> <p><u>Step 3.</u> Determine landfill operations costs for a landfill and balefill.</p> <p><u>Step 4.</u> Calculate yearly amortized costs plus operations for a landfill and a balefill.</p>
<p><u>Compare Costs:</u></p> <p><u>Step 1.</u> Add baler and balefill annual costs.</p> <p><u>Step 2.</u> Divide landfill and baler/balefill costs by tons received per year.</p> <p><u>Step 3.</u> Compare costs per ton.</p>

Source: "Baling Out" of the Landfill Crisis by Jeffery Crate, World Waste, October 1992 (page 56).

In evaluating the feasibility of using baling operations at landfills in Los Angeles County, it is important to note that, since most of the major metropolitan landfills are deep canyon fills, and while baling technology appears to be an appealing way to optimize the use of existing landfill capacity, it has not been demonstrated to be technically and environmentally feasible on a large-scale in an urban setting. Also, additional land requirements and high costs compared to conventional methods may hinder its widespread acceptance and use at landfills in Los Angeles County. Overall tipping fees for balefills, may still be substantially higher than conventional landfills.

5.4.5 Shredfills

A shredfill is a sanitary landfill in which solid waste is shredded before landfilling. Shredded solid waste can be compacted to a density greater than 1,200 pounds per cubic yard (pcyd) with the proper equipment, which may result in an increase up to 20 percent in landfill capacity, not including the space saved due to reduced cover requirements. A shredfill in Lewistown Maine attributes a 35 to 40 percent reduction in waste volume at the city landfill because of shredding. In-place densities of 1,600 have been achieved during tests with special compactors and operator care. It is not known whether these types of densities or volume reductions are applicable to deep fill sites.

The economics of shredfills versus conventional landfills does not appear to be attractive at this time. The benefits of conserved densities have not been shown to offset the costs of the shredding operation. A case in point is the San Marcos Landfill in San Diego. This landfill was converted back to a conventional landfill in 1982, because its operation as a shredfill was not economical. The shredding was accomplished at the Palomar Transfer Station. It was determined that shredding and transfer haul cost \$8 to \$10 per ton. In view of these costs, the Palomar Transfer Station and shredding operation were closed, and direct haul to San Marcos Landfill as a conventional landfill resumed.

5.4.6 Waste Compaction

Waste compaction is a method whereby waste is packed more densely in the landfill. By packing the waste more densely, the life of the landfill is extended since more waste can be placed in a given volume. The CIWMB has conducted tests to compare in-place densities of waste using the conventional crawler tractor and the compactor. The tests were conducted using waste hauled by transfer vehicles on a 5 to 1 slope and on flat ground. The crawler achieved in-place waste densities ranging between 900 and 1,050 pounds per cubic yard (pcyd). The compactor achieved densities between 1,250 and 1,400 pcyd (approximately 35 percent higher than the conventional crawler tractor). The actual conservation of the landfill space will be somewhat less, however, since in-place waste densities from a crawler tractor would increase somewhat over time due to landfill overburden and waste decomposition. Cover requirements will also influence the actual amount of landfill capacity conserved.

The compactor has other advantages compared to the crawler tractor. The initial cost is less, it consumes less fuel, it lasts longer, and less cover is required with its operation because the

waste surface is more uniform after compaction. However, the optimum situation is to use the crawler tractor and compactor in combination. The crawler tractor would push the waste to location, rip and break it up, and spread it. The compactor would compact the waste. Many landfill operators are converting to this combination of equipment recognizing the benefit of conserving landfill space with this method.

5.4.7 Exclusion of Inert Waste From Class III Landfills

One suggested method of conserving Class III landfill capacity is to prohibit disposal of inert waste at these facilities, unless the waste is needed for the operation and/or maintenance of the landfill. In 1990, approximately 7 to 8 percent of the waste received at Los Angeles County Class III landfills was inert waste. The percentage of inert waste received at these landfills has dropped substantially since then, due to the significantly lower tipping fees charged at unclassified (inert waste) landfills. Currently, practically all of the inert waste received at Class III landfills is either contaminated soil that cannot be disposed at unclassified landfills or material that is needed to satisfy daily cover requirements or used for access road maintenance purposes.

At best, exclusion of inert waste from Class III landfills would have a limited effect on the County's disposal capacity or on the life of existing disposal sites.

5.4.8 Exclusion of Biosolids (sewage sludge) from Class III Landfills

Domestic wastewater treatment plants produce large volumes of sludge. Typically, the sludge is either anaerobically or aerobically stabilized. Stabilized sludge are referred to as biosolids. Biosolids are produced at various collection networks of wastewater treatment/reclamation facilities operated by the CSD and the City of Los Angeles Bureau of Sanitation, as well as the Cities of Burbank and Avalon, the Las Virgenes Municipal Water District, and the Los Angeles County Department of Public Works.

In 1995, Los Angeles County residents generated an average of approximately 2,400 wet tons per day (wtpd) of biosolids (treated sewage sludge). Of this amount, 15 percent was managed on-site at various wastewater treatment facilities for purposes such as energy recovery and composting. Approximately 26 percent (600 wtpd) was managed off-site at in-County landfills for landfill co-disposal. The remaining 59 percent was shipped off-site to locations generally outside Los Angeles County for composting and land applications to grow crops such as sudan hay, alfalfa, barley, wheat, and cotton.

There are alternative disposal technologies in the developmental stages that may be capable of using all the biosolids currently being landfilled in Los Angeles County. Biosolids Injection Technology (BIT) is an innovation in cement kiln NO_x control (see Section 5.3.2.1., Biosolids Injection Technology).

BIT technology development has progressed through initial feasibility study and two phases of demonstration testing. Phase I demonstration testing was completed in 1994 and was

designed to prove the concepts and principles on which BIT technology is based. Phase II testing began in early 1995 and is still underway. All demonstration testing was performed at Mitsubishi Cement Corporation's Cushenberry plant in Lucerne Valley, California. Based on favorable results generated thus far, the CIEC has filed BIT technology patent applications.

On an annual basis, the Cushenberry plant can consume about 155,000 tons of biosolids/sewage sludge, equivalent to 10 percent of the annual wastewater sludge generated by Southern California's sewage treatment plants. When fully operational, it is expected that the plant will be capable of using all the biosolids currently being landfilled in Los Angeles County.

As various alternative disposal technologies are explored and/or patented, the exclusion of biosolids from Class III landfills would be effective only as a stopgap measure. Its effect on the County's disposal capacity would be limited and would not increase the life of existing disposal sites.

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CHAPTER 6 FACILITY SITING CRITERIA

6.1 PURPOSE AND REQUIREMENTS

The purpose of this chapter is to assist local jurisdictions in carrying out their responsibilities with regard to land use planning by providing guidelines for the siting of transformation and land disposal facilities. Also discussed are programs for the involvement of the public at the earliest stages of the planning process to ensure their active awareness of the need as well as participation in the safe management of solid waste. The specific requirements are drawn from Section 18756 of Title 14 of the California Code of Regulations (CCR).

6.2 SPECIFIC REQUIREMENTS

Section 18756 of Title 14 of the CCR requires the following:

- a) To establish a new solid waste disposal facility or to expand an existing solid waste disposal facility, the County shall describe the criteria to be used in the siting process for each facility. The criteria shall include, but not be limited to, a description of the major categories of environmental considerations, environmental impacts, socioeconomic considerations, legal considerations, and additional criteria as developed by the County and cities.
- b) The CSE shall describe the process instituted Countywide to confirm that the criteria set forth in (a) of this section are included as part of the solid waste disposal facility siting process.
- c) No solid waste disposal facility shall be established that does not satisfy the minimum criteria that are listed in the Siting Element pursuant to Section 18756(a).
- d) A solid waste disposal facility not described in the Siting Element shall not be established unless an amendment to the Siting Element has been approved identifying and describing the facility, and the date of its inclusion in the element pursuant to Section 41721.5 of the PRC.
 - For Los Angeles County an amendment to the CSE shall be in the form of a Finding of Conformance, granted by the Los Angeles County Solid Waste Management Committee/ Integrated Waste Management Task Force.

6.3 SITING AND PERMITTING

6.3.1 Siting

Location of a suitable site is essential to the development of new solid waste disposal facilities. The site selection process involves the applicant, local land use authority, and Federal, State, and local regulatory/permitting agencies. The applicant's primary interest lies in the site's proximity to wastesheds, land availability, potential for obtaining State and local permits and community acceptance. The interest of the local land use authority centers around protection of the health of the residents, and the implementation of its planning policies/goals to ensure compatible land uses. The regulatory/permitting agencies are charged with responsibility to protect human health and natural resources and are concerned with the ability of the technology employed to safely contain or through transformation processes destroy the waste it handles.

The siting of any solid waste disposal facility is certain to arouse substantial local concern and opposition. Residents of communities where such facilities are proposed invariably assert that a more thorough search would produce a more suitable location than that being proposed. Such arguments are difficult to counter arbitrarily. Without a set of criteria which identifies the risks associated with such facilities and a rating system which permits an unbiased appraisal and comparison of all candidate sites, objective decisions are hard to make. To assist in this decision making process, criteria have been developed for the siting of solid waste disposal facilities. This siting criteria, listed in Appendix 6A, provides guidance and primary selection constraints for siting proposed solid waste disposal facilities.

This chapter has been prepared with the intent to assist the applicant, the local community, and the regulatory/permitting agencies in making responsible decisions. The siting criteria presented in Appendix 6A will assist those using them to accomplish the following objectives:

- Protect the residents
- Ensure the structural stability and safety of the facility
- Protect surface water
- Protect groundwater
- Protect air quality
- Protect environmentally sensitive areas
- Ensure safe transportation of solid waste
- Protect the social and economic development goals of the community

The siting criteria have been developed so as to provide planners and decision-makers with a uniform set of guidelines and standards that may be used as a tool to identify both

potential sites and significant siting concerns. However, an understanding of the basic engineering and operational characteristics of the various types of solid waste disposal facilities, their typical impacts, and the range of mitigation measures available is also essential when evaluating sites.

Facility planners and the public at large should, however, be aware of the inherent limitations of the criteria developed as the issues involved can be complex and controversial. While good criteria can focus the pertinent factors, they cannot remove all controversy from the process. Moreover, the final decision can be of a political nature. Early public involvement and environmental mediation are methods to consider for constructively channeling conflicts into compromise.

6.3.2 Permitting

6.3.2.1 Overview

Proponents proposing to construct solid waste disposal facilities in Los Angeles County must apply for and be issued a series of both ministerial and discretionary permits from local and/or State regulatory agencies. The standard permit processing framework is governed to a great degree by the requirements of the California Environmental Quality Act of 1970 and the Permit Streamlining Act of 1977.

The California Environmental Quality Act (CEQA) provides a process which requires that governmental decision-makers consider the environmental effects of their decisions and take measures to prevent significant, avoidable damage to the environment. The Permit Streamlining Act places time limits in the review and decision-making processes of public agencies.

The major permitting entities for solid waste disposal facilities include local governmental agencies having jurisdiction over land use and solid waste disposal facility operation (cities and County), the California Integrated Waste Management Board/appropriate Local Enforcement Agency, the California Regional Water Quality Control Boards: Los Angeles and Lahontan Regions, the California Department of Fish and Game, the South Coast Air Quality Management District, and the Los Angeles County Solid Waste Management Committee/ Integrated Waste Management Task Force. Table 6B-1 (in Appendix 6B) lists regulatory agencies having jurisdictional control over solid waste disposal facilities in Los Angeles County. Figure 6B-1 (also in Appendix 5B) delineates the jurisdictional boundaries for the Los Angeles and Lahontan Regional Water Quality Control Boards.

6.3.2.2 Ministerial Permits

Ministerial permits are permits with set and structured standards. The number of ministerial permits required is dependent on the type of facility and its proposed location.

These permits generally include:

- Fire
- Building
- Grading
- Plumbing
- Electrical
- Sewer
- Industrial Waste
- Underground Tank Storage of Hazardous Materials (fuels, oil, etc.)
- Road Construction
- Drainage and Flood

The required time for processing the above permits will vary with the type, size and complexity of the proposed project.

6.3.2.3 Discretionary Permits

Discretionary permits are permits issued by an agency that exercises judgment, deliberation or decision in issuing the permit, or has conditions or controls placed on the permit.

The State and local processes and permits that are critical in the permitting of solid waste disposal facilities are further discussed in Section 6.5, Permits. Section 6.5 discusses the regulatory overview, permitting requirements and the administration process for the following discretionary permits:

- Local Jurisdiction(s) Planning Agency
 - Land Use/Conditional Use Permit
 - General Plan consistency
- Air Quality Management Districts
 - Permit to Construct
 - Permit to Operate

- California Regional Water Quality Control Boards
 - Waste Discharge Requirements
 - Stormwater/National Pollutant Discharge Elimination System Permit
- Local Enforcement Agency/California Integrated Waste Management Board
 - Solid Waste Facility Permit
- Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force
 - Finding of Conformance with the CSE/CoIWMP
- California Department of Fish and Game
 - Streambed Alteration Agreement, when applicable
- United States Department of the Interior, National Park Service

While the procedures for siting a solid waste land disposal/transformation facility are similar to those for siting any major industrial facility, solid waste disposal facilities are highly sensitive to public pressure. Proponents must therefore be prepared for a time-consuming permitting process and must fully comply with the requirements of CEQA. The permitting process has become even more difficult as a result of the decision-making process switching from local government authority to the jurisdiction of the Courts.

A permit application requires extensive technical documentation of the potential impacts and mitigating measures, as well as, detailed analysis pertaining to facility design, operation, maintenance, closure and post closure. In addition, the application must be supported by detailed site investigations and data analysis that satisfy permitting requirements. Lastly, the applicant must be able to demonstrate satisfactory financial capabilities. Currently, it could take in excess of ten years to site a solid waste disposal facility. Figure 6-1 provides an overview of the solid waste disposal facility permitting process.

6.4 PUBLIC PARTICIPATION IN THE SITING AND PERMITTING PROCESS

6.4.1 Overview

The siting of solid waste disposal facilities can be a highly volatile and emotional process. Public participation is included in the CSE as it is believed that a well-informed public is the key for successful siting of solid waste disposal facilities. The importance of early public involvement must be stressed to ensure adequate opportunities for their concern, involvement, and to welcome public input into the decision-making process so as to better serve public needs.

Most citizens are familiar with well-publicized waste management mistakes of the past and it is these visual pictures that shape their viewpoints. As such, a public involvement and education program can provide the public with information on solid waste management issues, enabling them to understand the importance of providing for the safe management of solid waste and demonstrating that alternative technologies and policies implemented today are safe and effective.

6.4.2 Public Participation

The importance of an effective public participation program, beginning at the earliest planning stages and continuing throughout the permitting process, cannot be emphasized enough. An effective public participation program should allow for the expression of public concerns, suggestions for alternatives and new strategies, as well as the review and assessment of the proposed measures. Such a program is essential to the acceptance and support of any plan developed.

To achieve this goal, a hierarchy of increasing public involvement levels has been recognized as follows:

1. Public Information
2. Public Education
3. Community Relations
4. Community Involvement
5. Public Participation

A description of each level is presented below:

6.4.2.1 Public Information

Public information is the first level in the public participation process. It is usually a one-way directional transfer of information. Information is gathered and made available to the public through channels such as libraries and public service announcements.

6.4.2.2 Public Education

Public education consists of providing the information on specific subjects to the public by means of brochures, seminars, and local schools, etc. The objective is to raise public awareness and stimulate thought. This process may or may not involve interaction between the two parties.

6.4.2.3 Community Relations

Community relations involves inviting the public to participate and the starting of a dialogue. At this level, the public usually already has an opinion regarding the relevant issues. Both the agencies and the public engage in discussions to reach a mutual goal that can best serve the entire community.

6.4.2.4 Community Involvement

Community involvement is the targeting of specific communities to raise their level of awareness regarding specific issues. Both the agencies and the public engage in discussions to reach a mutual goal that can best serve the entire community.

6.4.2.5 Public Participation

Public participation is the highest level of public involvement. The public is usually aware of the pros and cons of the subject matter(s). This is the stage where informed opinions are developed and educated decisions are made through negotiations between both sides.

6.4.3 Public Participation Programs

6.4.3.1 Overview

Public participation programs that facilitate understanding, negotiation, cooperation, and resolution can help to overcome mistrust and skepticism, as well as, avoid legal conflict. Once a facility is proposed, there may be only a short time to institute dialogue before individual viewpoints are established. Dialogue should be based on, among other things, credible information about the environmental integrity of a site, the need for the facility and its performance characteristics, and the financial stability, competence and integrity of the proposed facility operator. It is the responsibility of industry and government to provide the public with non-adversarial points of contact so as to reduce polarization early in the process and provide an opportunity for questions and concerns to be addressed with candor, clarity, and understanding. Responsive management is seen as a central part of comprehensive planning.

6.4.3.2 Process

Public involvement in the early stages is a critical factor in the proponent's understanding of the concerns of the public and the public's acceptance of the proposed site/facility. The public involvement process can be divided into three phases. The first is identification of issues and participants, the second is plan development; and third is the public participation program. By identifying the issues and participants, appropriate

informational techniques can be chosen to effectively encourage public participation in the siting process. The following summarizes the key components of a public involvement process.

6.4.3.2.1 Identification of Issues and Participants

Below are some factors that should be considered when identifying pertinent issues:

- The characteristics of the waste to be managed, including potential source areas;
- The location of the proposed facility and its proximity to population, surface water and groundwater, active faults, and important ecological systems;
- The characteristics of the site, including its topography, geology, hydrogeology and climate;
- The pathways available for release of solid waste constituents into the air, water and soil and the potential for human and ecosystem exposure;
- The design and operation of the proposed facility; and
- The safeguards and mitigation measures to be used at the facility.

Although some information on issues may not be available at the early stages of planning, these concerns should be addressed as soon as possible so that they become a part of the evaluation process.

Involving the appropriate people in a public participation program is another key factor in program effectiveness. A balance must be achieved between interested and/or affected parties and a workable group size. Participants should include representatives from the general population, community organizations and those who may have a general or particular interest in, or be affected by the siting decision.

Serious efforts must be made to inform, involve, and respond to their concerns. Possible participants to be considered are:

- General public
- Representatives of State, County, and local government agencies
- Businesses and industries
- Property owners in the vicinity of the site
- Public interest groups
- Environmental and conservation groups
- Ad hoc citizen groups

- Community and civic associations
- Local religious groups
- Media, including editorial boards

6.4.3.2.2 Plan Development

The plan development phase is the planning process to devise a mechanism and step by step process for bringing the public into the decision-making process. It should be recognized that the right of the public to participate in the decision-making process is derived from the fact that they will be affected by the consequences.

Below is a list of various techniques that can be employed to encourage understanding and the evaluation of a proposed siting project:

Information Techniques:

- Fact Sheets
- Newsletters
- Education of the media
- Use of news media
- Mailers

Consultation Techniques:

- Public meetings
- Public workshops
- Advisory committee drawing on major interest groups and representatives of the affected local community

6.4.3.2.3 Public Participation

Public participation programs promote conflict resolution by providing opportunities for individuals and groups with different viewpoints to explore alternative solutions. An important starting point of this process is to:

- Foster positive involvement and dialogue among the interested and affected parties;
- Define and focus issues that can identify the areas of real disagreement; and
- Provide ideas and information that may improve the quality of solutions and facilitate decision-making.

The following have been identified as possible avenues:

Citizens Advisory Committee

The membership of a Citizen Advisory Committee, usually selected by public officials, should represent a broad base of community interest including residents, and representatives selected by special and general interest groups (technical and environmental experts). A properly balanced and adequately staffed committee can ensure functional two-way communication and provide an on-going link between citizens and agencies involved in planning and siting.

Ad Hoc Committee

This body is usually a small group of people who have been assigned to research a specific problem in a limited time frame. Its membership, selected by the responsible local agency, should consist of those with the expertise necessary for the specific problem.

Public Meetings and Hearings

Public meetings and hearings can vary from a workshop to a formal, stenographically-recorded hearing. Both afford the opportunity for concerned citizens to formally present their views, often as a part of a project's permanent record or file.

6.5 PERMITS

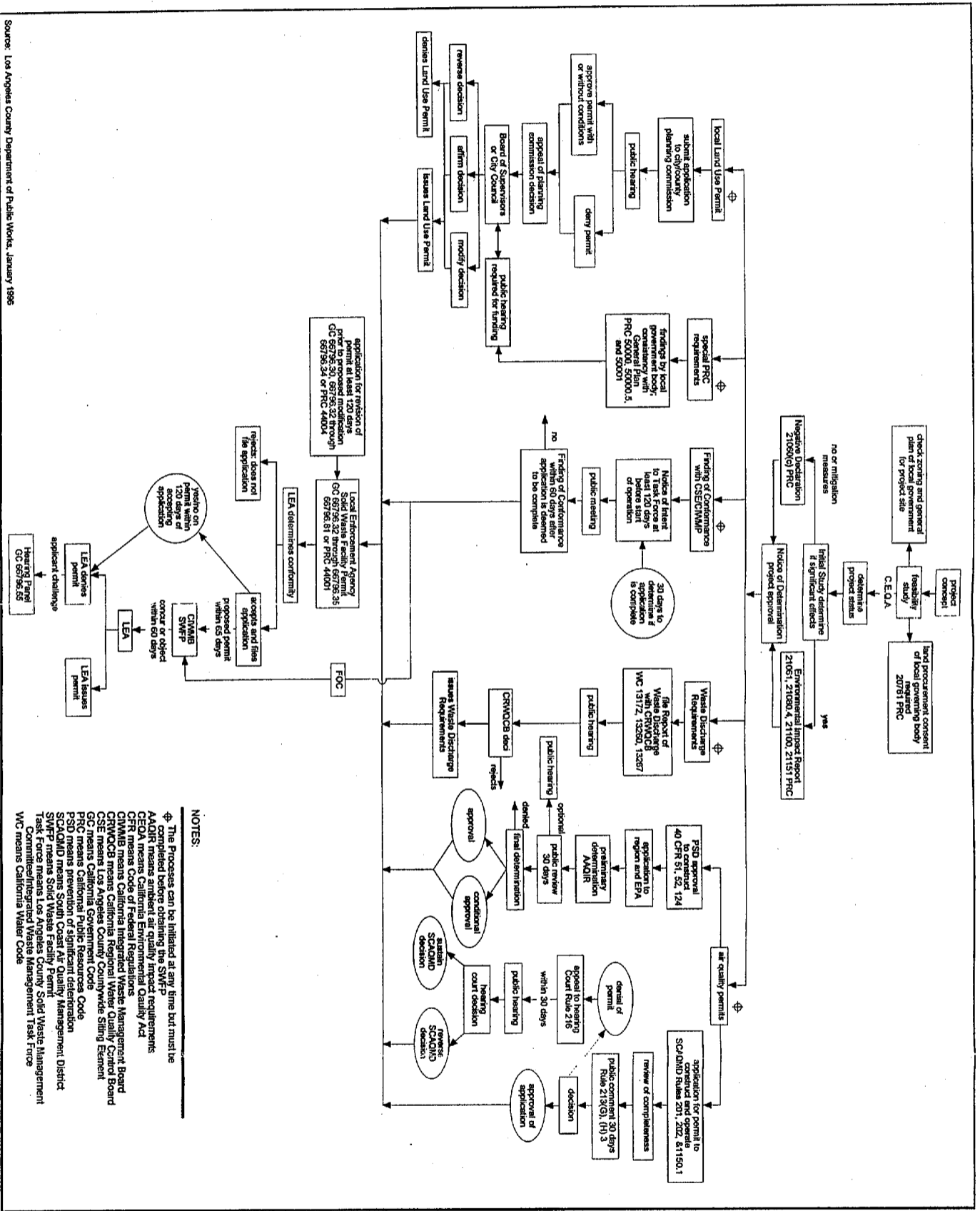
6.5.1 Permitting

A complex set of regulations and standards govern the disposal of solid wastes. These regulations are administered by local, County, State, and Federal agencies. Many of the local and State regulations contain monitoring and reporting requirements for the purpose of assuring compliance with standards. Prior to implementation of a potential solid waste disposal facility, the appropriate permits must be obtained by the owner/operator of the facility. The purpose of this section is to describe the major permits and associated standards which would be applicable to a solid waste disposal facility and to describe some of the anticipated monitoring requirements. Each of the permitting agencies specifies requirements as conditions of granting permits. An overview of the solid waste disposal facility permitting process is shown on Figure 6-1.

6.5.2 Land Use Permit

6.5.2.1 Regulatory Overview

In California, city and county governments have broad authority to plan for and regulate land use. Cities and counties are required by State law to adopt a General Plan to govern



Source: Los Angeles County Department of Public Works, January 1996

Solid Waste Disposal Facility Permitting Process
Los Angeles County Countywide Siting Element

- NOTES:**
- ⊕ The Processes can be initiated at any time but must be completed before obtaining the SWFP
 - AAQR means Ambient Air Quality Requirements
 - CAQR means California Air Quality Requirements
 - CER means California Regional Water Quality Control Board
 - CRWQCB means California Regional Water Quality Control Board
 - CSE means California Statewide Siting Element
 - GC means California Government Code
 - PRC means Prevention of Significant Deterioration
 - SCAQMD means South Coast Air Quality Management District
 - SWFP means Solid Waste Facility Permit
 - Task Force means Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force
 - WC means California Water Code

Figure 6-1

the physical development of lands in their jurisdictions. Zoning ordinances generally consist of text and maps specifying areas or zones, designated for such basic uses as residential, commercial, industrial, and agricultural. For each zone, the text of the zoning ordinance typically includes:

- An explanation of the purposes of the zone
- A list of the principal permitted uses
- A list of typical uses allowed for the designated zone and those uses allowed by a conditional use permit/land use permit
- Specific development standards such as lot size, density, building type, and setback

The conditional use/land use permit provision allows a local government to review and place conditions on an individual project to ensure that the project is suitable for the proposed use, and does not adversely affect neighboring land uses. This type of zoning ordinance provision can also be used to require the modification of an existing use permit should the existing land use be modified to a limited extent.

A local agency can also issue a "zoning variance" for development standards to a parcel, if special characteristics (e.g., lot size, shape, topography, location, or surroundings) deprive said parcel of the privileges that parcels in the same zoning designation have. However, zoning variances cannot be issued to allow uses not permitted under the zoning designation of the parcel in question.

If a proposed project in a specific location is not permitted by the zoning ordinance, then a zone change (or rezoning) must be obtained by the applicant. A zone change may require the General Plan to be amended so that it is consistent with the zoning ordinance.

The approval of General Plan amendments, zone changes, zoning variances, modifications to existing use permits, and conditional use/land use permits by the local agency are discretionary decisions and as such are subject to the requirements of the CEQA and public hearing requirements under State planning laws. The CEQA requires the lead agency in the permitting of solid waste disposal facilities, generally the County or city agency responsible for approving the conditional use/land use permit, to conduct an Initial Study of the proposed facility. If a potential significant environmental effect is identified, then an Environmental Impact Report is required. If the agency determines that the facility will not have any significant environmental effects or that any effects are able to be effectively mitigated, then a Negative Declaration is required.

In addition to the General Plan, the applicant should review the County Integrated Waste Management Plan (CoIWMP). This is of particular importance since the CoIWMP and its associated CSE designate sites for solid waste disposal facilities.

6.5.2.2 Permitting Requirements

The siting of a solid waste disposal facility requires the proponent to obtain a land use permit from a city or the County government, depending where the site is located. Zoning ordinances generally do not specifically designate lands that can be used for solid waste disposal facilities as a permitted use. However, solid waste disposal facilities have been authorized within specific zoning classifications when a conditional use/land use permit is obtained.

Each public agency in California is required to compile a list specifying in detail the information to be required of an application for a development project. The proponent of a solid waste disposal facility needs to fill out a development project application with the required information and submit it to the appropriate local agency (e.g., planning department). Generally the following is required:

- Information about the applicant
- Location of property and approximate size
- A description of the project
- A description of the site
- A description of how public services and utilities will be provided
- A discussion of the possible environment impacts

This information is used by the agency in determining conditions to be placed on the land use permit and in approving a General Plan amendment, if necessary. In addition, this information is used to determine if a request for a zone variance is appropriate. In reviewing this information, the local agency uses this information in their Initial Study for determining whether an Environmental Impact Report or Negative Declaration is required as mandated by CEQA.

6.5.2.3 Administrative Process

After the conditional use/land use permit application is submitted to the appropriate agency, the agency has 30 days in which to review the application for completeness and inform the applicant of those areas which are incomplete, if any.

Once the application is determined to be complete, the agency initiates the environmental review process under CEQA and orders the preparation of the appropriate environmental document. Following preparation of the final environmental document, a land use permit decision is made, usually by the local planning commission, board of zoning adjustment, or zoning administrator and/or local legislative body. The final permit decision is either approved, approved with conditions, or disapproved for the project.

If the project is approved, the conditional use/land use permit is issued with its stated conditions and, if necessary, associated zone change, zone variance, and/or General Plan amendment. If the final permit decision is disapproval, or if the conditions of the permit are judged unreasonable by the applicant or any other party, then the applicant/other party has the right to appeal the decision to the local legislative body (City Council or Board of Supervisors). Legislative bodies are usually not bound by the findings of a lower administrative body and may make their own determination on the project. If the outcome of the appeal is not satisfactory to the applicant or any other aggrieved party, then judicial relief can be sought.

The total length of time to receive the required land use permit(s) from lead and responsible agencies can be from 12 months to many years depending upon the complexity of the required environmental documentation. However, this time frame does not take into account challenges to the permit decisions and the judicial review associated with such activities.

6.5.3 South Coast Air Quality Management District

6.5.3.1 Air Quality Management Plan

For a project to be considered consistent with the South Coast Air Quality Management District's (SCAQMD) Air Quality Management Plan (AQMP), it must conform to the local agency's general plan and to the guidelines of the Southern California Association of Governments (SCAG). The SCAG guidelines are primarily addressed to wastewater facilities, transportation systems, and residential/office developments that increase population or employment in a specific area (i.e., growth-oriented developments). Landfills are not considered to be growth-inducing developments. In order to be considered consistent with the AQMP, any proposed landfill sites must be designated as potential landfill sites in the appropriate County General Plan.

Prior to construction and start up, the SCAQMD would require a project proponent for a solid waste disposal facility to acquire a Permit to Construct (Rule 201) and a Permit to Operate (Rule 203). In addition, any proposed disposal facility would be required to comply with SCAQMD regulations regarding landfill gas collection and disposal systems, landfill gas flaring facilities, and other types of stationary facilities with potential emissions and would include monitoring and performance conditions. Specifically, these are Rules 1150.1 and 1150.2 for landfills, and Rule 473 for transformation facilities.

6.5.4 California Regional Water Quality Control Board

6.5.4.1 Regulatory Overview

The State of California through the Porter-Cologne Water Quality Control Act established nine Regional Water Quality Control Boards (RWQCBs) with the responsibility of developing water quality control plans for their respective basin and the State Water Resources Control Board to formulate and adopt State policy for water quality control. Within Los Angeles County there are two Regional Boards that have developed plans that identify the beneficial uses of waters in the basin that are to be protected, water quality objectives that protect those uses, and an implementation plan to accomplish those objectives. These are the Los Angeles Region and the Lahontan Region and their respective jurisdictions are identified in Figure 6B-1 (in Appendix 6B).

6.5.4.2 Water Quality Control Plans

The California Porter-Cologne Water Quality Act and the Federal Water Pollution Control Act Amendments of 1972 required that Water Quality Control Plans (Basin Plans) be prepared for each of the nine hydrologic basins in the state. The purpose of the Basin Plans is:

- To designate the beneficial use of the basin's water resources, including groundwaters and both fresh and marine surface waters.
- To set forth water quality objectives to protect or restore beneficial uses.
- To establish implementation plans to achieve these water quality objectives.
- To set up surveillance programs to monitor the effectiveness of the implementation plans.
- To serve as a basis for establishing eligibility requirements for state and federal grant funding in the construction and improvement of wastewater treatment facilities.

Beneficial uses and water quality objectives have been established for both surface and groundwaters throughout each basin. In order, to be consistent with the Basin Plan, a proposed solid waste disposal facility must not cause a deterioration of beneficial uses or cause water quality objectives to be exceeded.

6.5.4.3 Subtitle D of the Federal Resource Conservation and Recovery Act

In October 1993, revisions to Subtitle D of the Federal Resource Conservation and Recovery Act (RCRA) became effective. These changes revised the minimum standards for solid waste disposal facilities by adding more in-depth design and location criteria for Municipal Solid Waste Landfills (MSWLFs). The revisions, which standardized siting and design criteria through out the Country, were partly based upon the already strict requirements mandated by the State of California and thus impacted solid waste management activities in California to a lesser degree. The amended Title 40 Code of Federal Regulations Part 257 revised the classification system for MSWLFs by defining several different types of solid waste land disposal facilities and structures. The newly created Part 258 mandated location restrictions, design and operating criteria, groundwater monitoring requirements, closure and post-closure requirements, and financial/liability requirements for MSWLFs/Class III landfills.

In response to the above action, the RWQCBs for the Los Angeles and Lahontan Regions amended their requirements for obtaining Waste Discharge Requirements Permit (WDRs) for all municipal solid waste landfills (Class III landfills) in the Los Angeles and Lahontan Regions in order to be fully consistent with Subtitle D. The principal revisions are reflected in more stringent design criteria for landfill/liners and location restrictions in and near floodplains and wetlands, and in and near areas of geologic instability; and more stringent requirements for groundwater monitoring. The Siting Criteria contained in Appendix 6A reflect the revisions and are consistent with Subtitle D of the RCRA.

6.5.4.4 Waste Discharge Requirements

The RWQCBs issue Waste Discharge Requirements permits for all landfills, based on the requirements for operating landfills set forth in Title 23, Division 3, Chapter 15 of the CCR, "Discharges of Waste to Land", and the requirements of Subtitle D of the RCRA. Waste Discharge Requirements permits establish conditions relating to water quality control that must be adhered to and require a comprehensive monitoring and reporting procedure. Waste Discharge Requirements permits also specify the types of wastes that may be accepted at the site.

In addition to these responsibilities, the RWQCBs have been delegated certain responsibilities associated with the Federal Clean Water Act, as amended, including the issuance of National Pollutant Discharge Elimination System (NPDES) permits for waste discharges to surface waters (e.g., through a pipe or confined channel).

To meet the water quality objectives of a Regional Board's implementation plan, NPDES permits and WDRs are adopted by the Regional Boards for discharges of waste that may affect groundwater and/or surface water quality and for discharges of waste that occur

in a diffused manner (e.g., erosion from soil disturbance). NPDES permits and WDRs permits set limitations of the type and quantity of surface waters or groundwaters of the State, and may specify engineering and technical requirements to ensure compliance.

Land disposal facilities will require a NPDES permit and/or WDRs permit if the facility could potentially affect surface or groundwater quality through waste discharges. Facilities that discharge treated wastewater to surface waters require a NPDES permit.

Specific regulations (Title 23, Division 3, Chapter 15 of the California Code of Regulations) concerning the water quality aspects of waste discharges to land, identify siting criteria, construction standards, water quality monitoring requirements, and closure and post-closure maintenance procedures for subsurface impoundments, landfills, waste piles, land treatment facilities, confined animal facilities and mining wastes.

6.5.4.4.1. Permitting Requirements

To apply for a WDRs permit, a "Report of Waste Discharge -Form 200" must be filed with the appropriate Regional Board 180 days prior to the start of the discharge. Title 23, Chapter 15, Article 9, of the CCR lists the required information that must be included in the "Report of Waste Discharge" and accompanying technical reports. A filing fee based upon the project's threat to water quality and complexity is also required. The Regional Board may also require additional information on a case-by-case basis.

WDRs permits must be obtained or waived by the Regional Board before a Solid Waste Facility Permit is issued by the appropriate Local Enforcement Agency/CIWMB. The CIWMB has agreed to incorporate WDRs into the Solid Waste Facility Permit to ensure consistency with the WDRs Permit.

To apply for a NPDES permit, an "Application for Permit to Discharge - Short Form D" must be filed with the appropriate Regional Board at least 180 days prior to beginning the waste discharges. Chapter 15, Article 9 lists the required information that must be included in the application .

6.5.4.4.2 Administrative Process

Waste Discharge Requirements

The "Report of Waste Discharge" and technical report are submitted to the appropriate Regional Board. The Executive Officer of the Regional Board then determines if the application is complete within 30 days and is responsible for notifying the applicant if additional information is required.

Once the application is complete, the Executive Officer then determines whether WDRs

should be adopted, the discharge should be prohibited, or the requirements should be waived by the Regional Board. The application is evaluated to determine whether the proposed discharge is consistent with the water quality objectives adopted by the Regional Board, the Water Quality Control Plan for the regional basin, and the Areawide Waste Treatment Management ("208") Plan. If the Executive Officer determines that WDRs should be adopted, then tentative requirements, including proposed effluent limitations, special conditions, and a monitoring program, is prepared. The tentative WDRs are distributed to all public agencies and individuals with a known interest in the project or who request the requirements.

Comments on the proposed requirements must be received within 30 days. After consideration is given to all comments, the Board holds a public meeting or a formal hearing at the request of the applicant on the tentative WDRs and either adopts the WDRs or modifies them before adopting them. Adoption requires a majority vote of the Board.

If the Executive Officer determines that the proposed waste discharge should be prohibited, then he/she must submit a report to the Regional Board stating the reasons for his action. The Executive Officer's report follows the same administrative process as outlined above. The Regional Board may concur with the recommendation to prohibit the discharge or require the Executive Officer to prepare WDRs.

NPDES Permit

The NPDES permit application is submitted to the appropriate Regional Board. The Executive Officer of the Regional Board determines within 30 days if the application is complete and notifies the applicant if additional information is required.

Once the application is determined to be complete by the Executive Officer, it is forwarded within 15 days to the Region IX office of the United States Environmental Protection Agency (i.e., Regional Administrator). The Regional Administrator has 20 days to review the NPDES permit application for completeness and to request any additional information from the applicant. If it is necessary to request additional information from the applicant, then the Administrator has an additional 20 days after the request to complete the review of the application and forward any comments to the Executive Officer.

The permit application is evaluated to determine whether the proposed discharge is consistent with the water quality objectives adopted by the Regional Board, the Water Quality Control Plan for the regional basin, the Areawide Waste Treatment Management Plan, and Federal effluent limitations.

If the Executive Officer determines that a NPDES permit should be issued for the waste discharge, then tentative waste discharge requirements are prepared including:

- Effluent limitations
- A schedule for complying with the discharge requirements
- Special conditions
- A discharge monitoring program

The tentative requirements are forwarded to the Environmental Protection Agency Regional Administrator for review. The Administrator then has 30 days (and may request an additional 30 days) to review the tentative requirements and submit any objections or comments to the Executive Officer.

While the Environmental Protection Agency Regional Administrator is reviewing the tentative requirements, a "Notice of Public Hearing" is prepared by the Executive Officer and a copy is sent to the applicant to circulate. Circulation instructions may require the applicant to do any of the following:

- Put up the notice in the post office and in other public places within the municipality closest to the area of discharge
- Post the notice at the entrance of the discharger's premises and in other nearby places
- Publish the notice in local newspapers or in a daily newspaper with general circulation

The applicant is required to submit proof to the Executive Officer of having complied with the instructions for circulating the notice within 15 days after it is posted or published.

The public notice is also mailed to agencies and individuals with known interest in the project or who request the notice. Reviewers of the tentative requirements will have 30 days to forward comments to the Executive Officer. Consideration is given to all comments and the tentative waste discharge requirements may be modified in response to the comments.

A public hearing must be held by the Regional Board. The tentative requirements may be adopted or modified and adopted by a majority vote of the Board at the hearing. The Environmental Protection Agency Regional Administrator has 10 days to review the adopted requirements; if objections are raised, then the NPDES permit does not become effective until the Executive Officer of the State Water Resources Control Board (SWRCB) modifies the permit to satisfy the Regional Administrator's objections.

If the Executive Officer of the Regional Board determines that a NPDES permit should not be issued after evaluating the application, then he must submit a report to the Regional Board stating reasons for his action. The Executive Officer's report then follows the same administrative process outlined above.

The Regional Board and/or Environmental Protection Agency may concur with the Executive Officer's recommendation or require the Executive Officer to prepare a NPDES permit.

6.5.4.4.3 Appeals Process

Any person may appeal the action of a Regional Board on WDRs or a NPDES permit by petitioning SWCRB within 30 days of the regional board's decision.

The petition should include:

- Specific action by the Regional Board that the petitioner is requesting the SWRCB to review
- Date on which the Regional Board acted
- Reasons that the action of the Regional Board was inappropriate
- Manner in which the petitioner is affected
- Specific action the petitioner requests the SWRCB to take
- Legal document known as "Points and Authorities", which discusses the legal issues raised by the petition

If a public hearing is requested, then the petition must state that additional evidence is available that was not presented to the Board or that evidence was improperly excluded by the Board. The nature of the evidence and the facts to support it must be included in the petition.

6.5.5 Finding Of Conformance

All solid waste disposal facilities must have a Finding of Conformance (FOC) with the CSE (exemptions are listed in Chapter 10 of the CSE, Section 10.4). An FOC provides that uniform compliance for public health and safety, and environmental protection is maintained between all jurisdictions, while ensuring consistency with the siting criteria established in this document. An FOC is necessary for incorporation of new solid waste disposal facilities or expansion of an existing facility into the CSE/CoIWMP. In addition, those solid waste disposal facilities which experience a significant change in operation, as defined in Chapter 10, are also required to obtain a Finding of Conformance with the CSE/CoIWMP. Chapter 10 discusses the Finding of Conformance process in greater detail.

- For solid waste disposal facilities in Los Angeles County the applicant must obtain an FOC with the CSE, from the Task Force, prior to issuance of the Solid Waste Facility Permit by the appropriate Local Enforcement Agency.

6.5.6 Solid Waste Facility Permit

6.5.6.1 Regulatory Overview

To improve waste management practices in California, the Z'berg-Kapiloff Solid Waste Control Act of 1976 (replaced by the California Integrated Waste Management Act of 1989) was enacted to require a permit and a permit enforcement program for solid waste disposal facilities. The Act established local enforcement authority to enforce the provisions and regulations within the Act and the State Minimum Standards for Solid Waste Handling and Disposal. Local enforcement agencies were designated by local governments and approved by the then California Waste Management Board to carry out these enforcement activities. The Los Angeles County Department of Health Services is the designated Local Enforcement Agency (LEA) for the unincorporated area of the County and for the majority of the incorporated cities. The Cities of Los Angeles, Long Beach, Vernon and West Covina have been designated as the LEAs for their respective jurisdictions. It should be noted that the California Integrated Waste Management Act of 1989 has incorporated and further expanded all requirements of the Z'berg-Kapiloff Solid Waste Control Act of 1976.

To obtain a Solid Waste Facility Permit (SWFP), a permit application must be filed with the LEA, or the California Integrated Waste Management Board (CIWMB), if there is no designated and certified LEA, a minimum of 120 days in advance of the date that the facility is to commence operation. Along with the application, appropriate technical reports detailing site specific information for the proposed facility must also be provided. This information is reviewed and analyzed to determine compliance with the State Minimum Standards for Solid Waste Handling and Disposal, as well as to determine conditions to be placed on the permit to conform with these standards. All other pertinent permits must be obtained and their respective status included in the application for consideration. Other permit procedures include review, and issuance or denial of the permit by the LEA or the CIWMB, and the opportunity for the applicant to appeal before a hearing panel if the permit is denied.

6.5.6.2 Permitting Requirements

The application for a SWFP consists of two parts: a general application form and a more detailed technical report - "Report of Facility Information" to be used to evaluate the design and operation of the proposed facility and for basing the conditions of the permit. The SWFP application form may be obtained from the LEA or the CIWMB. The appropriate Report of Facility Information, consisting of either a "Report of Disposal Site

Information", a "Report of Station Information", or a "Plan of Operation", must accompany the permit application. The determination of which technical report is appropriate is dependant upon the type and size of the facility as follows:

- a) A Report of Disposal Site Information (RDSI) must be submitted if the permit application is for a land disposal facility. The report must contain certain specified information, including:
- A description of the manner of operation to be conducted at the site and information on the types and relative quantities of waste to be received;
 - Indication of the approximate total acreage contained in the site, including the total estimated capacity and life expectancy of the site;
 - A map showing the general location of the proposed disposal site, including points of access to the site;
 - A plot plan which delineates the legal boundaries for which clear title is held by the applicant, and identification of the specific limits of the planned disposal area(s) showing relationships to the property boundary lines and adjacent land uses surrounding the site;
 - A description of the sequence of development stages of the disposal site operation, giving tentative implementation schedules for development, usage, site completion and closure, as well as a map showing the existing topographical contours of the completed disposal site;
 - Information of the underlying soils, geology, and groundwater occurrence, based on test borings conducted on the property; and description of all surface and subsurface drains which are to be used to control water on, or adjacent to the disposal site; and
 - Description of the location and type of monitoring wells necessary to ascertain groundwater quality and description of the landfill gas control system to be implemented.
- b) If a permit application is for a transformation facility (as defined by Section 40201, of the PRC) handling greater than 100 cubic yards per day, a Report of Station Information (RSI) must be submitted. The RSI must contain certain specified information, including:

- Plans and specifications for the station, including a site location map, a site plan, and identification of adjacent land uses and distances to nearby residences and structures;
 - An engineering report, describing the waste transfer process; air, water, and soil pollution control devices; and estimated quantities and types of solid wastes to be processed;
 - A description of the operations to be conducted at the station, an estimate of the design capacity, and an estimate of the anticipated daily capacity; and
 - Anticipated amount and planned method for final disposal of unrecoverable or nonmarketable residues or ashes, and volumes of quench or process water required, as well as planned method of treatment and disposal of any waste water.
- c) A Plan of Operation must be submitted if a permit application is for a transformation facility handling less than 100 cubic yards per day. The report must contain specified information, including:
- Description of type and nature of wastes received and not estimated quantities of waste anticipated to be received per day;
 - Schematic drawing of on-site traffic problems, buildings, and other structures, and description of traffic volumes and types;
 - Procedures for handling special wastes, e.g., infectious wastes, dead animals, etc.; and
 - Location and name of final disposal site

For all applications, the applicant must also submit a resume of the management organization that will operate the facility. In addition, the applicant must provide a compilation of the conditions, criteria, and requirements established, by the various approval agencies having jurisdiction over the facility.

6.5.6.3 Administrative Process

The Los Angeles County Department of Health Services is the designated Local Enforcement Agency for the unincorporated areas of the County and for the majority of the cities in the County. As with the County LEA, the Cities of Los Angeles, Long Beach, Vernon and West Covina, which have selected to be the sole enforcement authority for their jurisdiction, are required to submit a Local Enforcement Agency

Program Plan to the CIWMB for approval. The LEA program plans for the County and the cities are very similar.

The permit process begins with the filing of a permit application from a prospective facility proponent with the LEA. The LEA reviews and analyzes the information provided, along with other required information, including: land use permit; waste discharge requirements; air quality permit; various plans; and a Finding of Conformance with the County of Los Angeles CSE. The facility cannot start operation until a permit has been issued.

The LEA reviews the permit application for compliance with the State Minimum Standards for Solid Waste Handling and Disposal. If the application is determined to be incomplete, the LEA shall notify the applicant within five business days of its determination.

If the permit application is deemed complete, the application will be filed, and within a 55-day period, the LEA must prepare a proposed SWFP. The proposed SWFP will contain the conditions the enforcement agency proposes to include in the SWFP and proposed findings to satisfy the State standards. A copy of the proposed SWFP is submitted to the applicant, along with a form requesting a hearing, from which the applicant may use to obtain a hearing before the Hearing Panel to challenge any term or condition of the permit. The LEA maintains a current list of all pending applications for public notice and comment.

The LEA also submits a copy of the proposed SWFP to the CIWMB for concurrence. Within a 60-day period, the CIWMB will consider each proposed SWFP at a public meeting, at which time any person may also testify or offer comments. Written comments may be submitted to the CIWMB and will become part of the CIWMB's record of action. The CIWMB can either concur with or object to the proposed permit. Lack of action by the CIWMB within the 60-day period is considered as tacit concurrence.

Following concurrence by the CIWMB, the LEA will issue a SWFP. The permit will specify the person authorized to operate the facility and the boundaries of the facility. The permit will also include such conditions that are necessary to specify a design and operation that will control any adverse environmental effects of the facility.

If the permit is denied, the applicant can file an appeal with the LEA which then submits the appeal to a Hearing Panel. After a hearing, the decision of the Hearing Panel is the basis for an action by the LEA.

The LEA/CIWMB conducts a review of a solid waste facility permit every five years or sooner. The owner or operator of a solid waste disposal facility must submit a report,

prepared by a Registered Civil Engineer, to the LEA/CIWMB. The LEA will review the site design, implementation and operation plan to determine if any revisions are necessary. The LEA/CIWMB will submit a revised solid waste facility permit based on the findings of the report.

6.5.7 California Department of Fish and Game

6.5.7.1 Streambed Alteration Agreement

The California Department of Fish and Game requires a project proponent to acquire a Streambed Alteration Agreement for any project which impacts and/or alters a natural watercourse (USGS blue line watercourse). The Streambed Alteration Agreement specifies measures for the protection and/or restoration of any wetland habitat on the site.

6.5.8 Other Agencies

Finally, depending upon the situation and/or proposed location of a solid waste disposal facility, the following Federal and State agencies may need to be contacted regarding their respective jurisdictional control and required permits.

- United States Army Corps of Engineers, Los Angeles District
- United States Environmental Protection Agency, Region IX
- United States Department of the Interior, National Park Service, Pacific West Field Area
- California Coastal Commission

CHAPTER 7

PROPOSED IN-COUNTY FACILITY LOCATION AND DESCRIPTION

7.1 PURPOSE AND REQUIREMENTS

This chapter presents a description and location map of sites identified as potentially suitable for development as new Class III solid waste landfills and as potential expansions of existing Class III landfills. The contents of this chapter are consistent with the requirements of Section 18756.1 of Title 14 of the California Code of Regulations (CCR).

7.2 SPECIFIC REQUIREMENTS

Section 18756.1 of Title 14 of the CCR specifically requires the following:

- (a) The countywide siting element shall include a description of each proposed new solid waste disposal facility and a description of each proposed expansion of an existing solid waste disposal facility included in the siting element. The description shall include the type of facility, location, size, volumetric capacity of the facility expressed in tons and cubic yards, life expectancy (years), expansion options of the existing or proposed facility, and post-closure uses.
 - (1) Each siting element shall include one or more maps indicating the location of each proposed solid waste disposal facility and adjacent and contiguous parcels. The map(s) shall be drawn to scale and include the scale on the map sheet. The type of map(s) may be a 7.5 or 15-minute USGS quadrangle.
- (b) A description shall be provided in the siting element of how each proposed solid waste disposal facility contributes to and maintains the minimum of 15 years of combined permitted disposal capacity as described in Subsection 18755(a) of Title 14 of the CCR and is consistent with the diversion goals of Public Resources Code Section 41780.

7.3 INTRODUCTION

Three sites in Los Angeles County have been identified for potential new Class III landfills and six sites as potential expansions of existing Class III landfill facilities. Figure 7-1 shows the location of these sites.

These sites are the areas where the siting criteria described in Chapter 6 may be applicable for the development of additional Class III landfill disposal capacity necessary to address the disposal requirements of AB 939 for the 15-year planning period. However, prior to

development of any of these facilities or any other land disposal/transformation facility, the facility proponent is required to:

- Demonstrate that the project is in conformance with the CSE.
- Demonstrate that the project is consistent with the applicable local jurisdiction's General Plan. If a determination of consistency with the local jurisdiction's General Plan is not made by the local land use authority prior to the next revision of the CSE, then the project must be removed from the document.
- Undertake a vigorous site specific assessment for the proposed project.
- Address all environmental concerns as mandated by the California Environmental Quality Act.
- Satisfy the permitting requirements of local, State, and Federal agencies with jurisdiction over the project.

As a part of the determination of conformance with the Countywide Siting Element and its siting criteria, the project proponent must obtain approval of the Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force. The finding of conformance process is discussed in Chapter 10, and the siting criteria are detailed in Chapter 6.

7.4 POTENTIAL NEW CLASS III LANDFILL SITES

The siting of solid waste disposal facilities in Los Angeles County has always been a complex undertaking, involving public and private ownership and/or operation of disposal facilities, multi-agency regulations, and regional versus local considerations. This task has become increasingly more difficult in recent years with the implementation of progressively more stringent regulations for land disposal operations, increasing public resistance to siting of all types of disposal facilities including transformation facilities, and difficulty in the permitting process which has moved decisions from local governments to the courts.

7.4.1 Background

As discussed in Chapter 1, Subsection 1.4.2, in the mid-1980s, the Los Angeles County Board of Supervisors initiated a comprehensive solid waste management study and implementation program to ensure the health and safety of residents in Los Angeles County and avert a solid waste disposal crisis. As a result of this and subsequent actions by the Board of Supervisors, a series of planning strategies were developed and subsequently incorporated into the Los Angeles County Solid Waste Management Action Plan and adopted by the Board of Supervisors in April 1988.

- **Preliminary Alternate Site Study**

As an element of the Action Plan and as directed by the Board of Supervisors, the County Department of Public Works and the County Sanitation Districts of Los Angeles County conducted a preliminary study to identify sites/areas in Los Angeles County which may be potentially suitable for the development of Class III landfills. The results of this study are included in a report entitled "Preliminary Alternate Site Study," dated January 1988 (Appendix 7-A).

The Preliminary Alternate Site Study evaluated 101 potential landfill sites within the metropolitan area (all of Los Angeles County with the exception of the Antelope Valley) using a complex set of technical, environmental and social factors (See Appendix 7-A). Of the 101 initial sites, six were eventually selected as the most potentially suitable for new landfills and for conducting additional detailed studies. The six highest ranking sites identified were Blind Canyon, Browns Canyon, Elsmere Canyon, Mission/Rustic-Sullivan Canyons, Towsley Canyon, and Toyon II.

- **Program Environmental Impact Report**

Following the adoption of the Action Plan, the County Sanitation Districts and the County Department of Public Works conducted technical studies on the feasibility of the development of the landfill sites identified in the Preliminary Alternate Site Study concurrently with the preparation of a Draft Program Environmental Impact Report (EIR). The Elsmere Canyon site was excluded from this work since its development was being pursued by the Elsmere Corporation. A detailed discussion on the Elsmere Canyon site is contained in the following subsection.

The technical investigations of the Blind Canyon, Mission-Rustic-Sullivan Canyons, and Towsley Canyon sites revealed that these sites potentially meet the geological requirements for Class III landfills. However, the Browns Canyon and Toyon II sites failed to show suitable geological capability for a Class III landfill and, therefore were eliminated from further consideration. Based on this information, the Draft Program EIR was prepared (State Clearinghouse No. 89010419) in August 1990 and released for public review. Based on written comments received and those provided orally at the public information meeting, the final Program EIR was prepared.

The recent acquisitions of key parcels in and around the Blind Canyon and Towsley Canyon sites by the Santa Monica Mountain Conservancy for future park development has hindered each site's accessibility. As a result, the Final Program EIR's certification process was put on hold until such time as access to these sites were addressed.

- **Elsmere Canyon Site**

As previously indicated, the Elsmere Canyon site is one of the six highest ranking sites identified in the Preliminary Alternate Site Study. In December 1988, Elsmere Corporation, the former project proponent, submitted an application to the County Department of Regional Planning for a Conditional Use Permit for the development of a Class III landfill and materials recovery facility at this site. The originally proposed project property encompassed an area of approximately 2,700 acres of which 1,643 acres are located within the Los Angeles National Forest.

As directed by the County Department of Regional Planning and the U.S. Forest Service, a draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) was prepared for the project.

As a part of the draft EIR/EIS preparation and the consideration of alternate sites, in addition to the re-evaluation of the 101 sites identified in the Preliminary Alternate Site Study, the EIR/EIS evaluated an additional 50 sites which were not identified in any previous studies. The draft EIR/EIS found critical deficiencies in all the sites evaluated except for the four sites not eliminated as a result of subsequent studies to the Preliminary Alternate Site Study which was conducted by the County Sanitation Districts of Los Angeles County and the County Department of Public Works.

The draft EIR/EIS (State Clearinghouse No. 89032935) was released for public review in January 1995. The public review period for the project's EIR/EIS ended August 4, 1995, and subsequently the final EIR/EIS was prepared. However, the document was not released due to enactment of the Omnibus Parks and Public Lands Management Act of 1996 (Public Law 104-333, Section 812). This Act prohibits the transfer of any Angeles National Forest Lands for use as a solid waste landfill.

As a result, Elsmere Corporation, the current project proponent, is no longer considering the use of the areas within the Angeles National Forest. The scaled-down project would provide for a solid waste disposal capacity of 80 million tons, all within the privately held portion of the Elsmere Canyon site.

7.4.2 Facility Location and Description

Of the 101 sites evaluated by the Preliminary Alternate Site Study and subsequent work conducted as a part of the draft Program EIR preparation, and the additional studies conducted on 50 sites in preparation of the initially proposed Elsmere Canyon Landfill's draft EIR/EIS, all but four sites were eliminated as a result of critical deficiencies in one or more of the screening criteria. These sites include

- Blind Canyon with a potential capacity of 130 million tons
- Elsmere Canyon with a potential capacity of 190 million tons
- Mission/Rustic-Sullivan Canyons with a potential capacity of 125 million tons
- Towsley Canyon with a potential capacity of 225 million tons

However, as stated in Section 7.4.1, the Elsmere Canyon site has been scaled-down to 80 million tons of capacity. Also, existing Federal law (Public Law 98-506) prohibits the siting of new landfills within the boundary of any unit of the National Park System. Since the Mission/Rustic-Sullivan Canyons are located within the area designated as the Santa Monica Mountains National Recreation Area, which is a unit of the National Park System (Public Law 95-625), the use of these canyons for a landfill site is in conflict with Public Law 98-506. Therefore, these canyons have been removed from further consideration.

The Towsley Canyon site has also been removed from further consideration as a potential new landfill site as directed by the Los Angeles County Board of Supervisors.

Therefore, the combined disposal capacity potentially available at the remaining potentially viable sites is 210 million tons (350 million cubic yards, at an in-place density of 0.6 tons per cubic yard). A brief summary of the potential new landfill sites is provided in Table 7-1. Tables 7-2 and 7-3 provide a detailed description of the type of facility, its location, size, volumetric capacity in cubic yards and tons, life expectancy (years), and post-closure uses. Figures 7-2 and 7-3 indicate the location of each potential new Class III solid waste landfill.

7.5 POTENTIAL CLASS III LANDFILL EXPANSIONS

As indicated in Section 3.3, a study by the County Department of Public Works was conducted in December 1994, and January 1995, as part of the preparation of the CSE to determine the existing remaining disposal capacity in Los Angeles County as well as the potential for expansion of existing landfill sites. The study consisted of a written survey of all permitted solid waste disposal facilities and data collected from site specific permit criteria established by local land use agencies, local enforcement agencies, California Regional Water Quality Control Boards, and the California Integrated Waste Management Board. A total of six Class III landfill operators indicated in their responses that they had filed or intended to file applications for landfill expansions. These potential Class III landfill expansions were:

- Antelope Valley
- Chiquita Canyon
- Lancaster
- Lopez Canyon
- Puente Hills
- Sunshine Canyon

Subsequently, the Lopez Canyon Landfill closed on July 1, 1996 in accordance with a decision of the Los Angeles City Council to grant no further extensions of the facility's land use permit beyond that date. Also, the County Sanitation Districts has since indicated that the Joint Powers Agreement governing the operation of the Scholl Canyon Landfill recognizes the possibility of utilizing 6 million tons of available disposal capacity beyond that currently permitted at the site. Section 7.5.2. discusses in detail the potential landfill expansions.

Table 7-1 provides a brief summary of the potential expansions of existing Class III landfill facilities. Detailed information on these facilities and their locations is provided in Subsection 7.5.2, Tables 7-4 through 7-9 and Figures 7-1 and 7-4 through 7-9.

7.5.1 Definition of Landfill Expansion

"**Landfill Expansion**" is defined as an increase in the physical dimension of a solid waste landfill, or an extension or renewal of a permit whose expiration date may affect the operation of the facility. A physical expansion may be vertical by increasing the permitted elevation to which solid waste may be disposed and/or horizontal by increasing the permitted boundary in which solid waste may be disposed to areas contiguous or adjacent to the area of the existing operation.

7.5.2 Project Description and Status

- **Antelope Valley Landfill Expansion**

The Antelope Valley Landfill is located in the City of Palmdale in the northeastern portion of Los Angeles County. The facility is owned by Arklin Brothers Enterprises, Inc., and operated by the Palmdale Disposal Company, a subsidiary of Arklin Brothers Enterprises, Inc. The facility was annexed into the City of Palmdale, effective December 1963, as part of the City's incorporation.

Arklin Brothers Enterprises, Inc., has proposed an expansion of the existing facility into the unincorporated area of Los Angeles County which would increase the capacity by approximately 6.4 million tons (7.6 million cubic yards at an in-place density of 0.84 tons per cubic yard) the life expectancy to 11.6 years, and the disposal rate to 1,800 tons per day.

On April 8, 1992, the Los Angeles County Regional Planning Commission granted Conditional Use Permit No. 85512-(5) for expansion of the existing facility in the City of Palmdale into the County unincorporated area. The Commission amended the CUP No. 85512-(5) with CUP No. 93041-(5) to increase the permitted daily disposal capacity to 1,800 tons on December 1, 1993. On January 12, 1995, the California Regional Water Quality Control Board - Lahontan Region, granted a

Waste Discharge Requirements permit for the proposed expansion. Additionally, Arklin Brothers Enterprises, Inc., was granted a Finding of Conformance with the Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force on October 20, 1994. Prior to its development, the proponent must obtain a Solid Waste Facility Permit from the Los Angeles County Department of Health Services (Local Enforcement Agency)/California Integrated Waste Management Board.

- **Chiquita Canyon Landfill Expansion**

The Chiquita Canyon Landfill is located in the unincorporated County area on the western edge of the Santa Clarita Valley and north of Highway 126. The property is owned by Newhall Land and Farming Company and the Landfill is operated under a lease agreement with Laidlaw Waste Systems, Inc., (Allied Waste Systems). The existing facility is a Class III landfill and consists of five currently permitted canyons (or waste management units) totaling 154 acres in landfill area. The current Landfill operates in the unincorporated area of Los Angeles County under CUP No. 1809-(5) issued on November 24, 1982, which will expire on November 27, 1997.

Laidlaw Waste Systems, Inc. filed an application for a CUP for the expansion of the facility with the Los Angeles County Regional Planning Commission. The originally proposed expansion included a vertical expansion over the 85.3 acres of the existing permitted landfill, a 183-acre horizontal expansion of landfill area within the 592-acre lease boundaries to a total of approximately 337 landfill acres, and an increase in daily refuse tonnage from the currently permitted daily capacity of 5,000 tons to a maximum of 10,000 tons. The proposal would have increased the permitted capacity by approximately 29.5 million tons (43.7 million cubic yards at an in-place density of 0.675 tons per cubic yard) and extend the life of the landfill by a minimum of eight years at a disposal rate of 10,000 tons per day. Included in the expansion is the addition of resource recovery facilities that are proposed to include a composting operation, a materials recovery facility, and a household hazardous waste drop-off center.

On September 11, 1996, the County Regional Planning Commission approved a CUP for a scaled-down landfill expansion. The CUP provides for 18.3 million tons of additional disposal capacity and allows for continued disposal operations through November 24, 2012, or until completion of the approved fill design, whichever occurs first. The CUP limits the net tonnage placed in the landfill to a maximum of 6,000 tons on any given day or 35,000 tons per week (5,000 tons per day average, based upon seven working days per week). The CUP also provides for the establishment of a 500 tpd materials recovery facility, a recyclable household hazardous waste facility, and a composting facility processing 400 tpd of green waste and 160 tpd of biosolids.

The Commission's approval of the CUP has been appealed to the County Board of Supervisors. As of January 1997, the Board of Supervisors had not reached a decision on the matter.

- **Lancaster Landfill Expansion**

The Lancaster Landfill and Recycling Center is a 100-acre Class III facility owned and operated by Waste Management of California, Inc., in the northeastern portion of unincorporated Los Angeles County. The facility is located approximately two miles northeast of the City of Lancaster.

Waste Management of California, Inc., has proposed an expansion to the west (Western Expansion) of the existing Landfill and Recycling Center, and a noncontiguous expansion to the east (Eastern Expansion), separated from the existing site by 10th Street East. The Western Expansion would consist of a vertical expansion of approximately 100 acres of existing permitted landfill area and approximately 62 acres of horizontal expansion area. The proposed Western Expansion would increase the existing Landfill capacity by 5.15 million tons. The Eastern Expansion would encompass about 112 acres of primarily undeveloped land with a projected capacity of approximately 5.35 million tons. The site is expected to increase its waste inflow to a maximum of 1,700 tons per day with a total capacity of 10.5 million tons (17.5 million cubic yards at an in-place density of 0.6 tons per cubic yard).

The owner/operator has filed an application for a CUP for the expansion of the Landfill. The Draft EIR for the proposed Lancaster Landfill expansion was being prepared as of January 1997.

- **Puente Hills Landfill Expansion**

The Puente Hills Landfill is located southeast of the Pomona Freeway (State Route 60) and the San Gabriel River Freeway (Interstate 605). The facility is owned and operated by the County Sanitation Districts of Los Angeles County. The proposed expansion would consist of an extension of the facility's existing CUP for an additional ten-year operating period beyond the existing CUP's November 1, 2003, expiration date.

While the existing land use grant was approved for ten years of operation only, the approved landfill footprint was designed to provide flexibility in the use of ten years of additional capacity, approximately 37 million tons (74 million cubic yards at an in-place density of 0.5 tons per cubic yard), available at the site, at the discretion of the local land use authority. This issue and the impacts associated with it were also considered in the EIR prepared for the project.

The necessary applications and/or environmental documents regarding the future expansion of the facility have not been submitted by the County Sanitation Districts of Los Angeles County.

- **Scholl Canyon Landfill Expansion**

The Scholl Canyon Landfill is located north of the Ventura Freeway in the City of Glendale and is owned by the City of Glendale and the County of Los Angeles. The Landfill is operated by the CSD under a Joint Powers Agreement between the City, the County, and the CSD.

Based on the land use permit issued by the City of Glendale in 1978, it is estimated that this permitted capacity will be exhausted by the year 2014 based on an average disposal rate of 1,850 tpd, six days a week. At the exhaustion of the current permitted capacity, approximately 6 million tons of potentially available capacity would remain at the site. The expansion of the Scholl Canyon Landfill has been recognized in the Joint Powers Agreement governing the operation of the site. However, the CSD has not proposed a definite expansion design plan.

- **Sunshine Canyon Landfill Expansion**

BFI, owner/operator of the facility, is proposing an expansion of the existing Landfill into the City of Los Angeles portion of Sunshine Canyon as well as in the unincorporated County portion.

The proposed project would consist of a horizontal expansion on the City side, and vertical expansions of the currently closed City site and the recently approved County site. The expansion, if approved, will provide approximately 75 million tons (105 million cubic yards at an in-place density of 0.7125 tons per cubic yard) of additional capacity and would increase the facility's daily capacity to 11,000 tons.

The proposed project requires land use approval from the City of Los Angeles. No additional approval is required for the County side if the proposed expansion does not extend beyond the horizontal and vertical limits of the disposal area stipulated in the existing CUP.

An application has been filed with the City of Los Angeles for the proposed expansion and the draft EIR is currently under preparation.

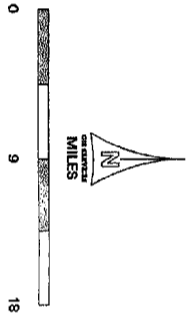
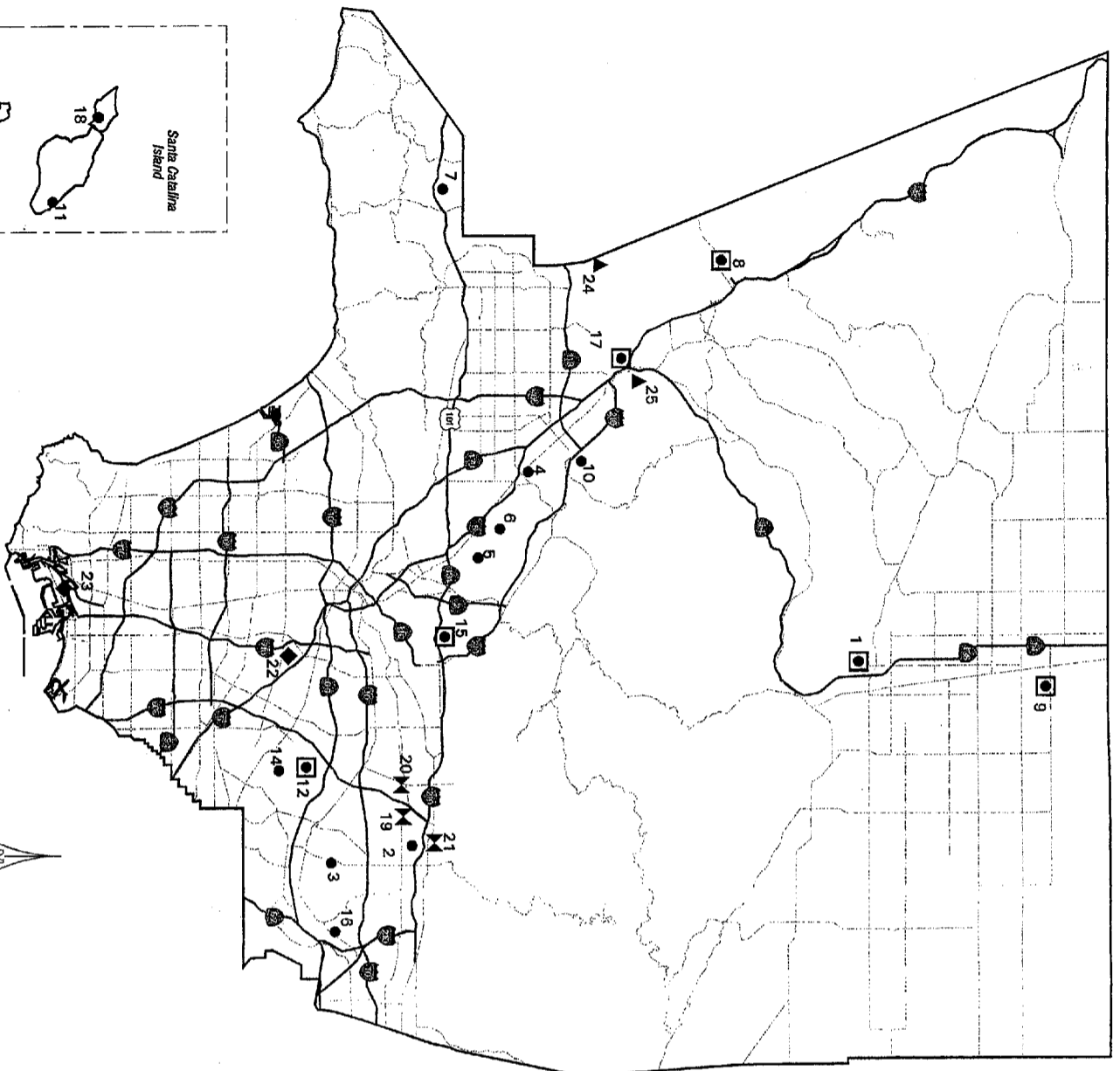
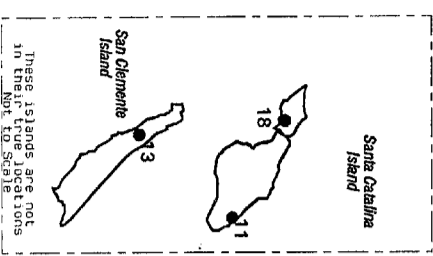
7.6 PROPOSED TRANSFORMATION FACILITIES

Currently, there are no proposed new transformation facilities or proposed expansions of existing transformation facilities in Los Angeles County and therefore, none have been identified in the CSE. However, it should be noted that transformation facilities remain a valid solid waste disposal alternative for future consideration/development in Los Angeles County.

Transformation technologies have been identified as an extremely effective means to divert the greatest amount of solid waste from landfills. Chapter 5 provides a description of alternative solid waste disposal technologies, including transformation technologies.

7.7 FACT SHEETS AND MAPS

The following are Fact Sheets describing each potential new Class III landfill and potential expansion of existing Class III landfill facility in Los Angeles County. Accompanying the Fact Sheet of each potential site is a map showing the location of each facility, the property boundaries, and the disposal footprint.



Class III Landfills

- 1 Antelope Valley Landfill
- 2 Azusa Land Reclamation (limited to inert waste as of 10/3/96)
- 3 BKK (closed 9/15/96)
- 4 Bradley
- 5 Brand Park
- 6 Burbank
- 7 Calabasas
- 8 Chiquita Canyon
- 9 Lancaster
- 10 Lopez Canyon (closed 7/1/96)
- 11 Pebbly Beach
- 12 Puente Hills
- 13 San Clemente
- 14 Savage Canyon
- 15 Scholl Canyon
- 16 Spadra
- 17 Sunshine Canyon (opened 8/5/96)
- 18 Two Harbors (closed 9/30/95)
- 24 Blind Canyon
- 25 Elsmere Canyon

Unclassified (Inert) Landfills *

- 19 Nu-Way Landfill (permitted on 6/3/96)
- 20 Peck Road Gravel Pit
- 21 Reliance Pit #2

Transformation Facilities

- 22 Commerce Refuse-To-Energy Facility (CREF)
- 23 Southeast Resource Recovery Facility (SERRF)

LEGEND

- Existing Class III Landfill
- Potential Expansion of Existing Class III Landfill
- ▲ Potential New Class III Landfill
- ◆ Existing Transformation Facilities
- ▶ Existing Unclassified (Inert) Landfills

* Note: As of 10/3/96, Azusa Land Reclamation Landfill has been operating as an unclassified landfill only.



Location of Existing Disposal Sites, Potential Expansions, and Potential New Sites in Los Angeles County

Figure 7-1

Table 7 -1

**SUMMARY OF POTENTIAL NEW LANDFILLS
AND POTENTIAL EXPANSIONS OF EXISTING FACILITIES**

SITE/ LOCATION	OPERATOR	PROPOSED/ POTENTIAL DAILY DISPOSAL RATE	ESTIMATED DISPOSAL CAPACITY
POTENTIAL NEW CLASS III LANDFILLS			
Blind Canyon Ventura & Los Angeles Counties Unincorporated Areas	County Sanitation Districts of Los Angeles County	16,500 tpd-6	130 million tons
Elsmere Canyon County Unincorporated Area	BFI	16,500 tpd-6	80 million tons
POTENTIAL EXPANSIONS OF EXISTING CLASS III LANDFILLS			
Antelope Valley County Unincorporated Area	Arklin Brothers Enterprises, Inc.	1,800 tpd-7	6.4 million tons
Chiquita Canyon County Unincorporated Area	Laidlaw Waste Systems, Inc.	5,000 tpd-7	18.3 million tons
Lancaster County Unincorporated Area	Waste Management of Lancaster, Inc.	1,700 tpd-6	10.5 million tons
Puente Hills County Unincorporated Area	County Sanitation Districts of Los Angeles County	12,000 tpd-6	37 million tons
Scholl Canyon City of Glendale	City of Glendale/County Sanitation Districts of Los Angeles County	3,400 tpd-6	6 million tons
Sunshine Canyon County Unincorporated Area & City of Los Angeles	BFI of California, Inc.	11,000 tpd-6	75 million tons

Source: Los Angeles County Department of Public Works, Environmental Programs Division, January 1997

**BLIND CANYON LANDFILL
FACT SHEET**

1. **FACILITY TYPE**

Class III

2. **LOCATION**

The potential Blind Canyon Landfill site is located in the Santa Susana Mountains in the northwest area of Los Angeles County and partially within the County of Ventura unincorporated area.

3. **SIZE**

Proposed Disposal Area: 530 acres

Total Acreage of Site: 5,700 acres

4. **VOLUMETRIC CAPACITY**

Daily: 16,500 tons [33,000 cubic yards]

Yearly Equivalent: [5.2 million tons] [10.4 million cubic yards]

Facility Capacity: 130 million tons [260 million cubic yards]

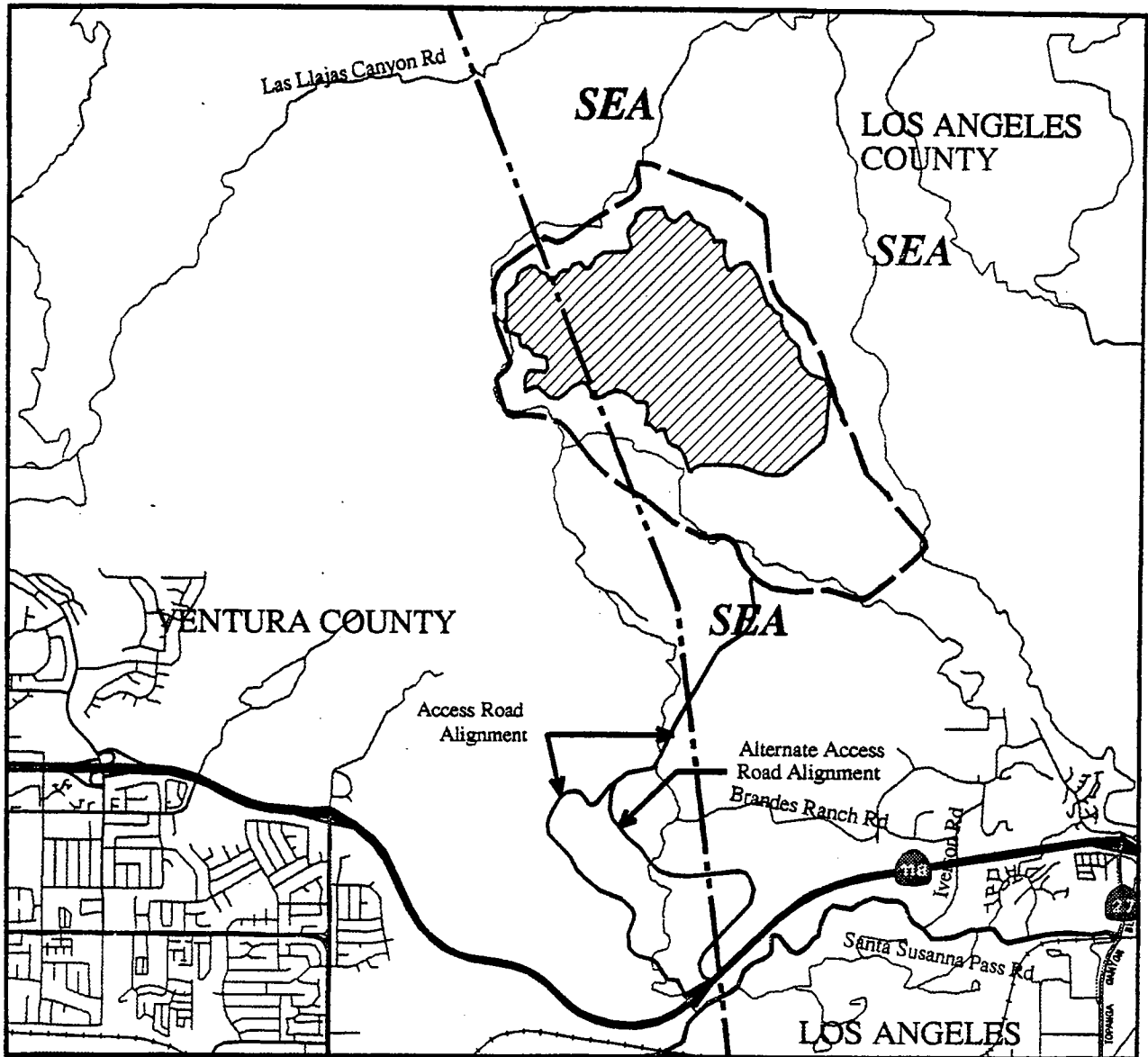
In-Place Density: 0.50 tons/cubic yard

5. **LIFE EXPECTANCY** - 25 years based upon 16,500 tpd, 6 days per week

6. **OWNER/OPERATOR** - County of Los Angeles and/or the County Sanitation Districts of Los Angeles County/County Sanitation Districts of Los Angeles County





7. **POST-CLOSURE USES** - open space

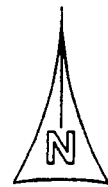
Note: Calculated or assumed quantities are shown in brackets.



LEGEND

 Potential New

-  Limits of Closed Areas
-  Limits of Disposal Areas
-  Property Boundary
-  City Limits



GIS SERVICES
SCALE 1" = 3800'

SEA: Significant Ecological Areas
Los Angeles County General Plan Land Use Policy# LU-1, 11/1980



BLIND CANYON LANDFILL

Los Angeles County Countywide Siting Element

Figure 7-2

**ELSMERE CANYON LANDFILL
FACT SHEET**

1. **FACILITY TYPE**

Class III

2. **LOCATION**

The potential Elsmere Canyon Landfill site is located in the unincorporated area of Los Angeles County, approximately 1/2 mile southeast of the Antelope Valley Freeway (SR-14) and the Golden State Freeway (I-5) interchange.

3. **SIZE**

Proposed Disposal Area: N/A acres

Total Acreage of Site: N/A acres

4. **VOLUMETRIC CAPACITY**

Daily: 16,500 tons [23,571 cubic yards]

Yearly Equivalent: [549,000 tons] [653,571 cubic yards]

Facility Capacity: 80 million tons [114 million cubic yards]

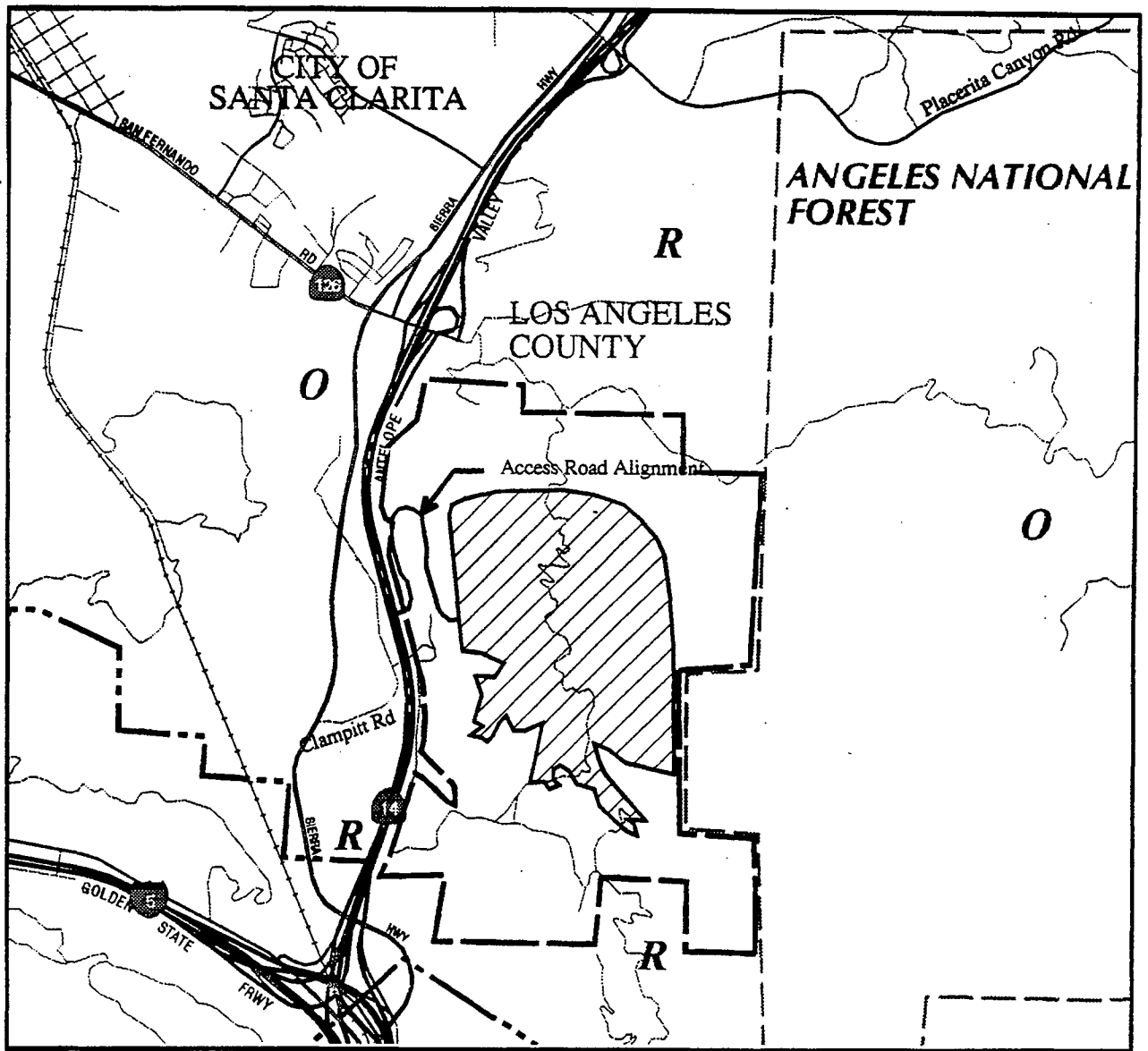
In-Place density: 0.70 tons/cubic yard

5. **LIFE EXPECTANCY** - 15.5 years based upon 16,500 tpd, 6 days per week

6. **OWNER/OPERATOR** - Elsmere Corporation

7. **POST-CLOSURE USES** - open space

Note: Calculated or assumed quantities are shown in brackets.



LEGEND

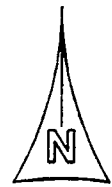
 Potential New

 Limits of Disposal Areas

 Property Boundary

 City Limits

 Angeles National Forest Boundary



GIS SERVICES

SCALE 1" = 2800'

O: Open Space, **R:** Non-Urban

Los Angeles County General Plan Land Use Policy# LU-1, 11/1980

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ELSMERE CANYON LANDFILL

Los Angeles County Countywide Siting Element

Figure 7-3

**ANTELOPE VALLEY PUBLIC LANDFILL EXPANSION
FACT SHEET**

1. FACILITY TYPE

Class III. This facility will also utilize an existing materials recovery facility which is located within the existing portion of the Landfill in the City of Palmdale.

2. LOCATION

1200 West City Ranch Road, Palmdale, CA 93551
The Antelope Valley Landfill is located in the unincorporated Antelope Valley area of Los Angeles County, about 1/2 mile east of the intersection of Tierra Subida Avenue and City Ranch Road.

3. SIZE

Proposed Disposal Area:	58 acres
Total Acreage of Site:	368 acres

4. VOLUMETRIC CAPACITY

Daily:	1,800 tons	[2,143 cubic yards]
Yearly Equivalent:	[549,000 tons]	[653,571 cubic yards]
Facility Capacity:	6.4 million tons	[7.60 million cubic yards]
In-Place Density:	0.84 tons/cubic yard	

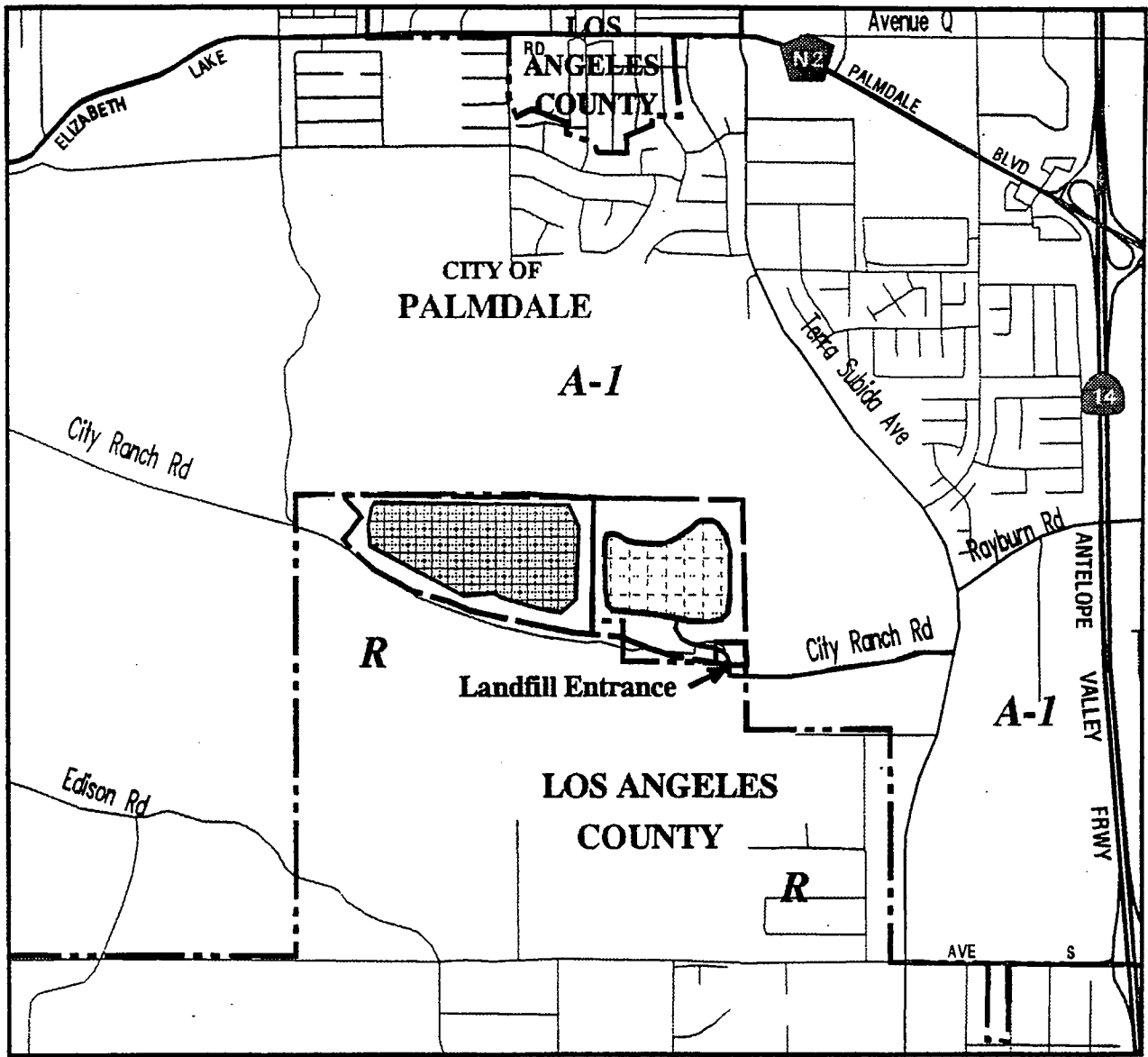
5. LIFE EXPECTANCY - 11.6 years based upon 1,800 tpd, 6 days per week

6. OWNER/OPERATOR - Arklin Brothers Enterprises, Inc./Palmdale Disposal Company






7. EXPANSION OPTIONS - no additional expansion is proposed

8. POST-CLOSURE USES - open space

Note: Calculated or assumed quantities are shown in brackets.



LEGEND

- | | | | |
|---|------------------------|---|--------------------------|
|  | Existing Disposal Area |  | Limits of Disposal Areas |
|  | Potential Expansion |  | Property Boundary |
| | |  | City Limits |



R:Non-Urban
 Los Angeles County General Plan Land Use Policy# LU-1, 11/1980
 A-1, Light Agricultural - City of Palmdale Zoning Map

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Figure 7-4
ANTELOPE VALLEY LANDFILL EXPANSION

Los Angeles County Countywide Siting Element

Table 7-5

**CHIQUITA CANYON LANDFILL EXPANSION
FACT SHEET**

1. **FACILITY TYPE**

Class III

2. **LOCATION**

29201 Henry Mayo Drive, Newhall, CA 91355

The site is located in the northwestern Santa Clarita Valley in an unincorporated portion of Los Angeles County.

3. **SIZE**

Proposed Disposal Area: 229 acres

Total Acreage of Site: 592 acres

4. **VOLUMETRIC CAPACITY**

Daily: 5,000 tons [7,405 cubic yards]

Yearly Equivalent: [3.12 million tons] [4.6 million cubic yards]

Facility Capacity: 18.2 million tons [30.0 million cubic yards]

In-Place Density: 0.675 tons/cubic yard

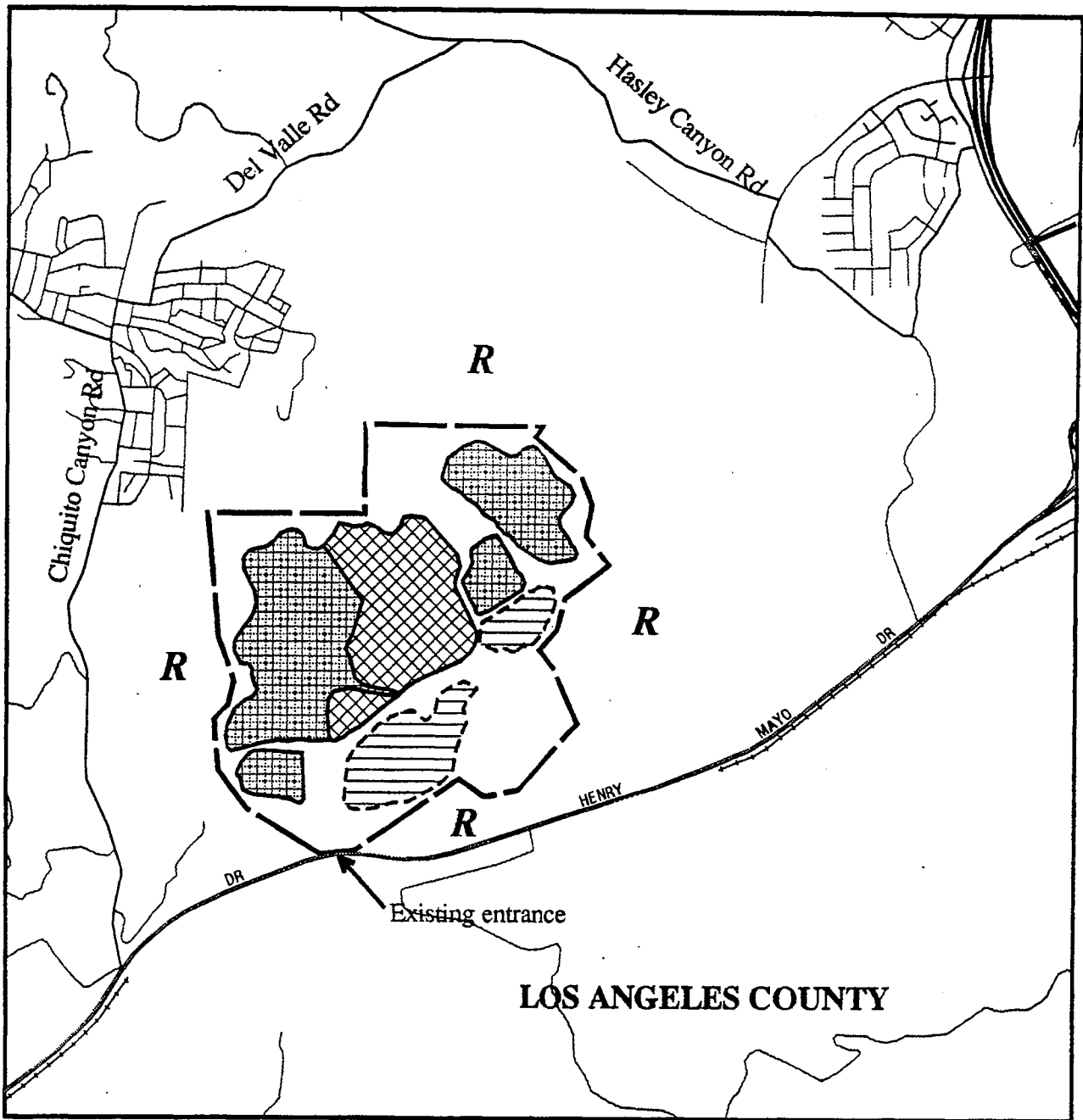
5. **LIFE EXPECTANCY** - 5.8 years based upon 10,000 tpd, 6 days per week

6. **OWNER/OPERATOR** - Newhall Land and Farming Co./Laidlaw Waste Systems, Inc.








7. **EXPANSION OPTIONS** - no additional expansion is proposed

8. **POST-CLOSURE USES** - open space

Note: Calculated or assumed quantities are shown in brackets.



LEGEND

- | | | | |
|---|--|---|---------------------------------|
|  | Closed Disposal Area |  | Limits of Closed Areas |
|  | Potential Expansion Over Existing Disposal Area |  | Limits of Disposal Areas |
|  | Potential Horizontal Expansion |  | Property Boundary |
| | |  | City Limits |



GIS SERVICES
SCALE 1" = 2400'

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Figure 7-5
CHIQUITA CANYON LANDFILL EXPANSION

Los Angeles County Countywide Siting Element

**LANCASTER LANDFILL EXPANSION
FACT SHEET**

1. FACILITY TYPE

Class III

2. LOCATION

600 East Avenue F, Lancaster, CA 93535

The Lancaster Landfill is located in the unincorporated area of Los Angeles County.

3. SIZE

Proposed Disposal Area: 240 acres

Total Acreage of Site: 270 acres

4. VOLUMETRIC CAPACITY

Daily: 1,700 tons [2,833 cubic yards]

Yearly Equivalent: [530,000 tons] [884,000 cubic yards]

Facility Capacity: 10.5 million tons [17.5 million cubic yards]

In-Place Density: 0.60 tons/cubic yard

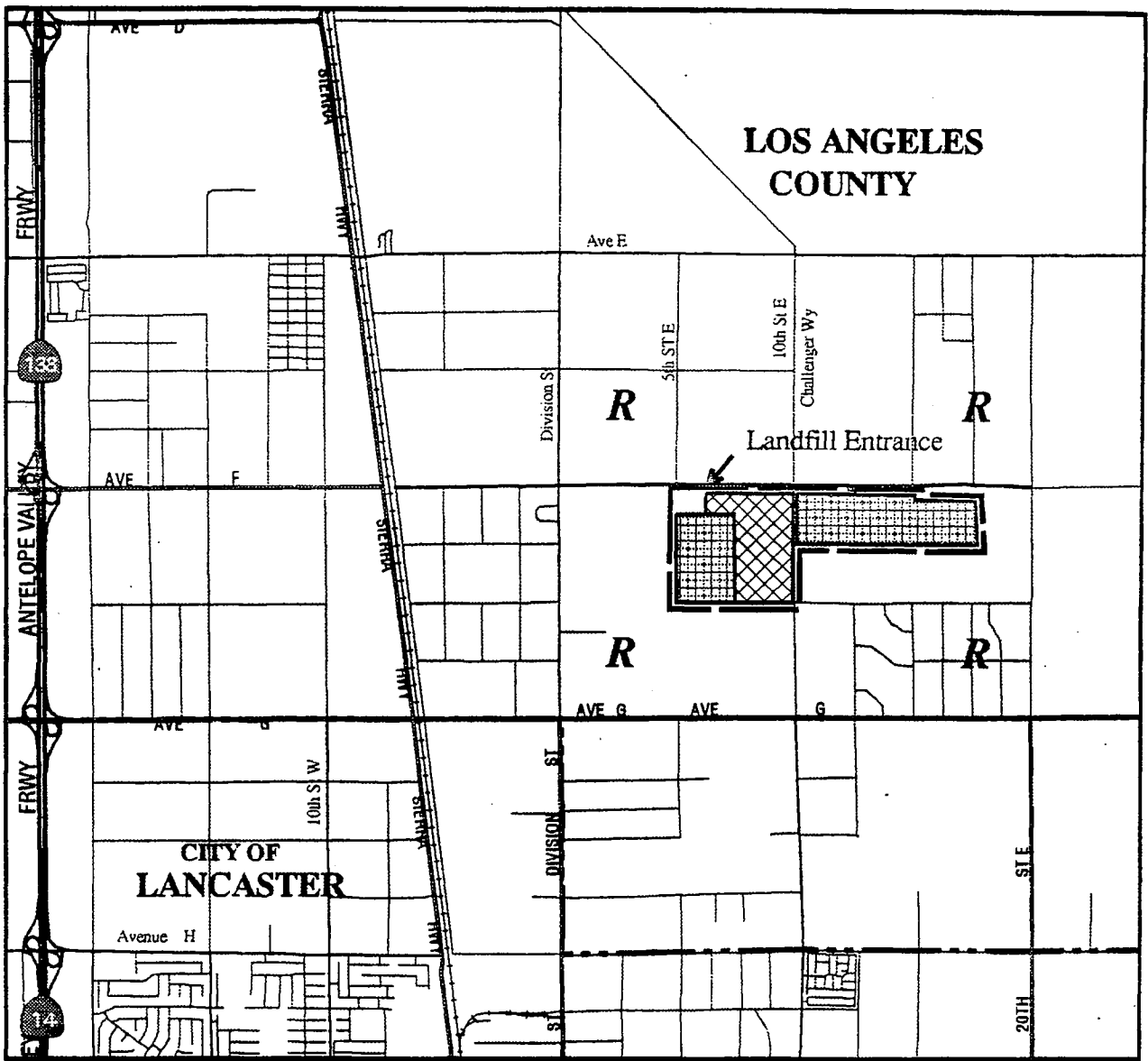
5. LIFE EXPECTANCY - 20 years based upon 1,700 tpd, 6 days per week

6. OWNER/OPERATOR - Waste Management of Lancaster, Inc. (a subsidiary of Waste Management of North America, Inc.)






7. EXPANSION OPTIONS - no additional expansion is proposed

8. POST-CLOSURE USES - open space

Note: Calculated or assumed quantities are shown in brackets.



LEGEND

-  Potential Expansion
-  Potential Expansion Over Existing Disposal Area
-  Limits of Disposal Areas
-  Property Boundary
-  City Limits



GIS SERVICES

SCALE 1" = 4000'

R:Non-Urban

Los Angeles County General Plan Land Use Policy# LU-1, 11/1980

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LANCASTER LANDFILL EXPANSION

Los Angeles County Countywide Siting Element

Figure 7-6

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PUENTE HILLS LANDFILL EXPANSION

FACT SHEET

1. **FACILITY TYPE**

Class III

2. **LOCATION**

2800 South Workman Mill Road, Whittier, CA 90601

The Landfill is located in the unincorporated area of Los Angeles County, southeast of the intersection of the Pomona Freeway (SR-60) and San Gabriel River Freeway (I-605).

3. **SIZE**

Proposed Disposal Area:	370 acres
Total Acreage of Site:	1,365 acres

4. **VOLUMETRIC CAPACITY**

Daily:	12,000 tons	[24,000 cubic yards]
Yearly Equivalent:	3.74 million tons	[7.49 million cubic yards]
Facility Capacity:	37 million tons	[74 million cubic yards]
In-Place Density:	0.50 tons/cubic yard	

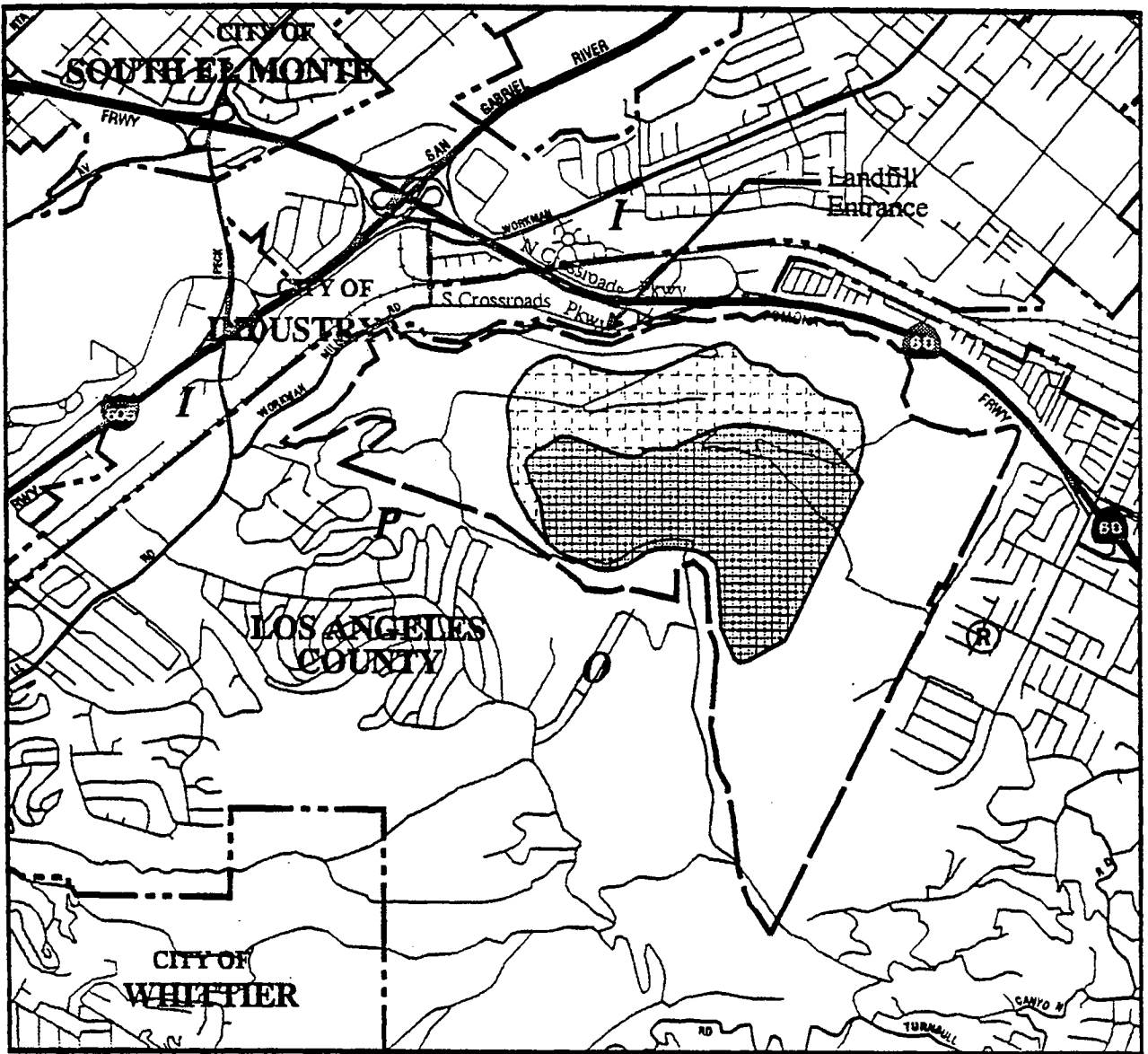
5. **LIFE EXPECTANCY** - 10 years based upon 12,000 tpd, 6 days per week

6. **OWNER/OPERATOR** - County Sanitation Districts of Los Angeles County






7. **EXPANSION OPTIONS** - no additional expansion is proposed

8. **POST-CLOSURE USES** - park and recreational use

Note: Calculated or assumed quantities are shown in brackets.



LEGEND

- | | | | |
|---|--|---|--------------------------|
|  | Existing Disposal Area |  | Limits of Disposal Areas |
|  | Potential Expansion to Occur Within Existing Disposal Area |  | Property Boundary |
| | |  | City Limits |



GIS SERVICES

SCALE 1" = 3000'

I:Industrial, O:Open Space, P:Public/Semi-public Facilities, R:Residential
 Los Angeles County General Plan Land Use Policy# LU-1, 11/1980

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PUENTE HILLS LANDFILL EXPANSION

Los Angeles County Countywide Siting Element

Figure 7-7

SCHOLL CANYON LANDFILL EXPANSION

FACT SHEET

1. **FACILITY TYPE**

Class III

2. **LOCATION**

3001 Scholl Canyon Road, Glendale, CA 91206

The Landfill site is located in the City of Glendale, approximately 1 mile north of the Ventura Freeway (SR-134) and bordering an unincorporated area of Los Angeles County.

3. **SIZE**

Proposed Disposal Area: Yet to be determined

Total Acreage of Site: Yet to be determined

4. **VOLUMETRIC CAPACITY**

Daily: 3,400 tons [7,100 cubic yards]

Yearly Equivalent: [1,054,000 tons] [2,195,800 cubic yards]

Facility Capacity: 6 million tons [8.82 million cubic yards]

In-Place density: 0.68 tons/cubic yard

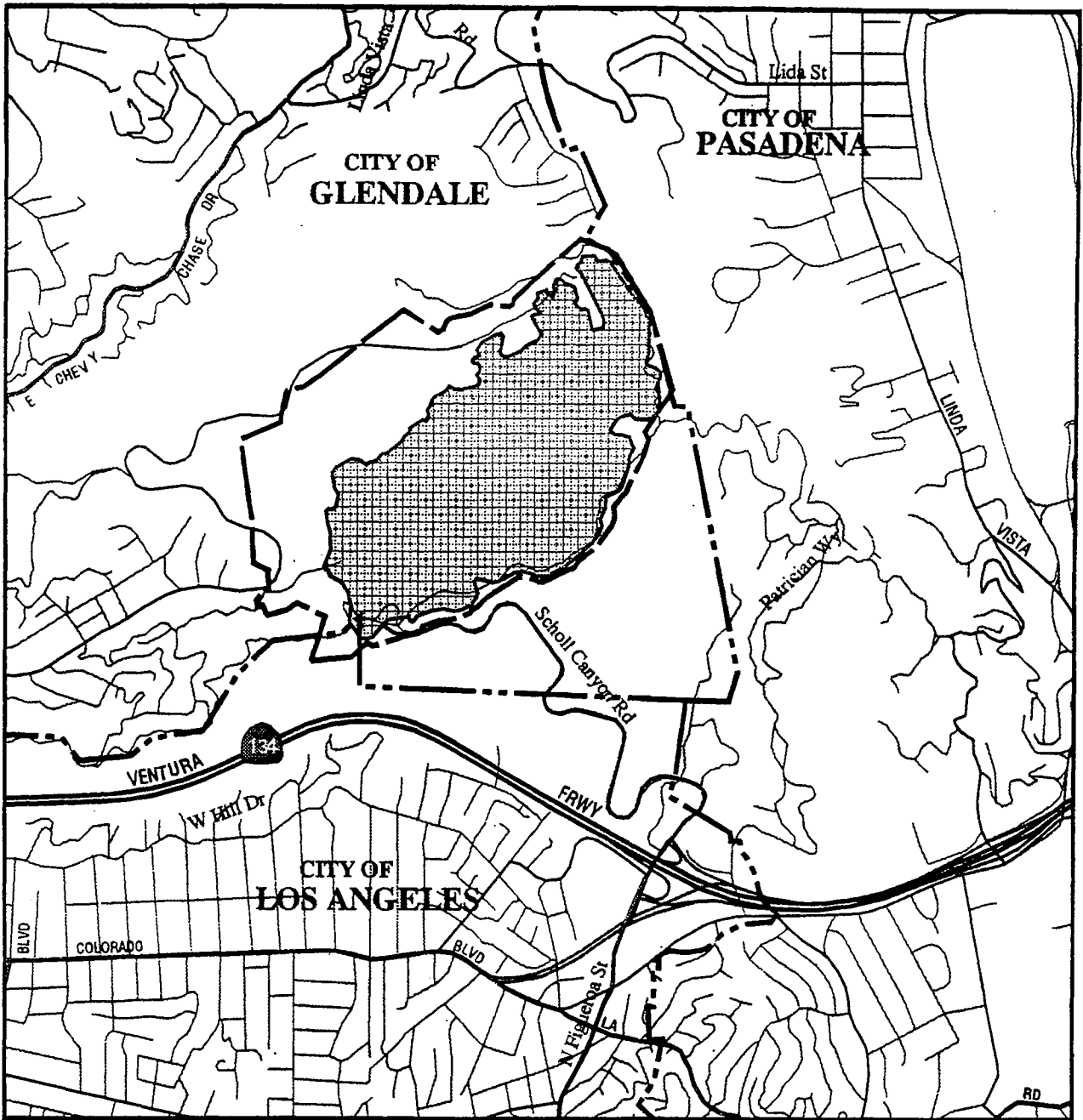
5. **LIFE EXPECTANCY** - 6 years based upon 3,400 tpd, 6 days per week

6. **OWNER/OPERATOR** - City of Glendale, County of Los Angeles /County Sanitation Districts of Los Angeles County


7. **EXPANSION OPTIONS** - no additional expansion is proposed

8. **POST-CLOSURE USES** - open space

Note: Calculated or assumed quantities are shown in brackets.



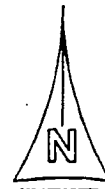
LEGEND

 Potential Expansion to Occur Within Existing Disposal Area

 Limits of Disposal Areas

 Property Boundary

 City Limits



GIS SERVICES

SCALE 1" = 2200'

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SCHOLL CANYON LANDFILL
Los Angeles County Countywide Siting Element

Figure 7-8

**SUNSHINE CANYON LANDFILL EXPANSION
FACT SHEET**

1. **FACILITY TYPE**

Class III

2. **LOCATION**

14747 San Fernando Road, Sylmar, CA 91342

The existing facility is located in the unincorporated area of Los Angeles County. The proposed expansion will utilize areas within the City of Los Angeles and the County unincorporated area.

3. **SIZE**

Proposed Disposal Area: 185 acres

Total Acreage of Site: 494 acres

4. **VOLUMETRIC CAPACITY**

Daily: 11,000 tons [15,439 cubic yards]

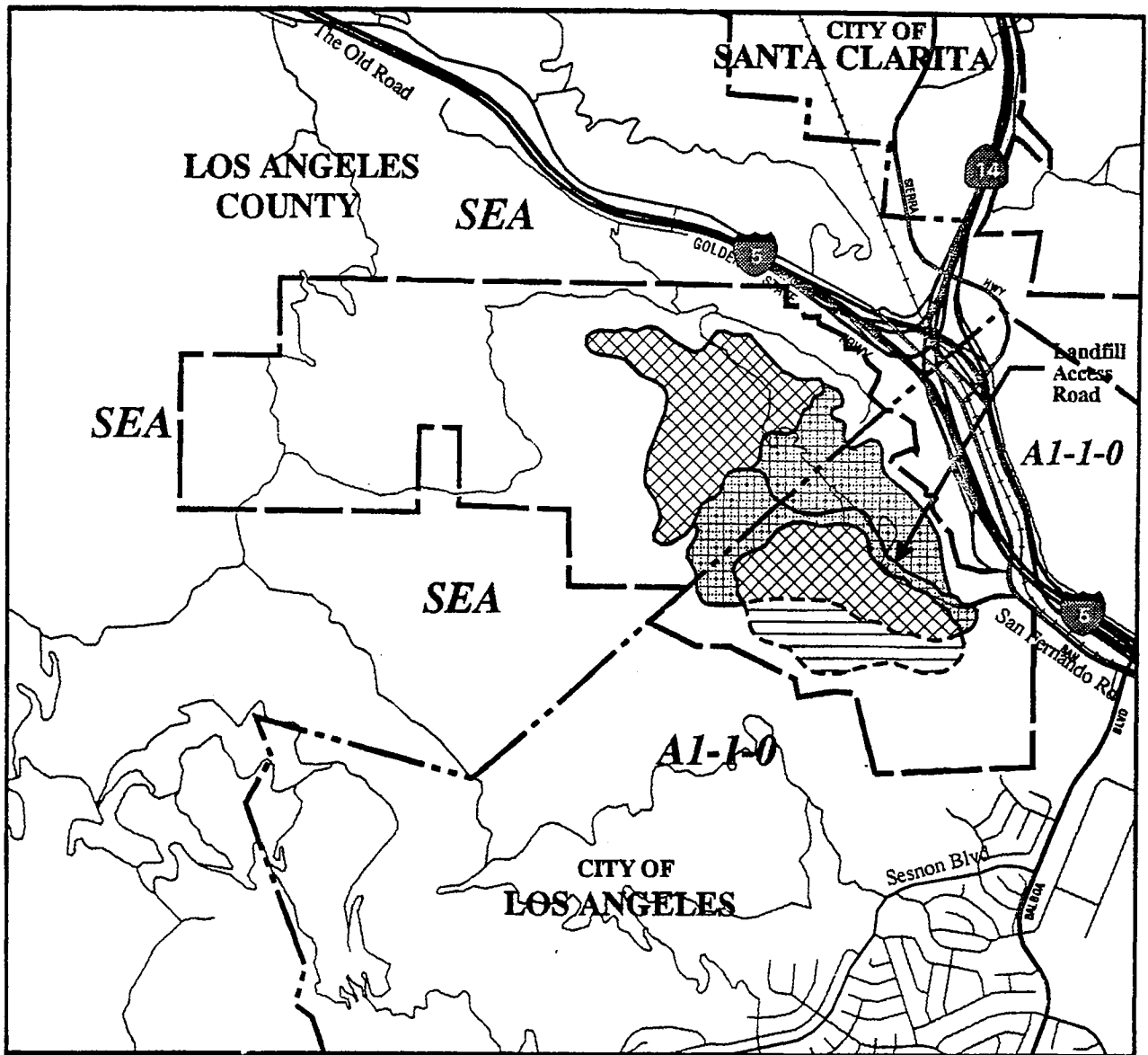
Yearly Equivalent: [3.4 million tons] [4.77 million cubic yards]

Facility Capacity: 75 million tons [105 million cubic yards]








In-Place Density: 0.7125 tons/cubic yard

5. **LIFE EXPECTANCY** - 22 years based upon 11,000 tpd, 6 days per week6. **OWNER/OPERATOR** - Browning-Ferris Industries of California, Inc.7. **EXPANSION OPTIONS** - no additional expansion is proposed8. **POST-CLOSURE USES** - open space

Note: Calculated or assumed quantities are shown in brackets.



LEGEND

- | | | | |
|---|---|---|--------------------------|
|  | Closed Disposal Area |  | Limits of Closed Areas |
|  | Potential Expansion Over Existing County or Closed City Disposal Area |  | Limits of Disposal Areas |
|  | Potential Expansion |  | Property Boundary |
| | |  | City Limits |



GIS SERVICES
SCALE 1" = 3000'

SEA: Significant Ecological Areas

Los Angeles County General Plan Land Use Policy# LU-1, 11/1980

A1-1-0: Agricultural, Height District No.1, Oil Drill Zone, City of Los Angeles Zoning Map

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Figure 7-9

SUNSHINE CANYON LANDFILL EXPANSION

Los Angeles County Countywide Siting Element

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CHAPTER 8 GENERAL PLAN CONSISTENCY

8.1 PURPOSE AND REQUIREMENTS

The California Integrated Waste Management Act of 1989, as amended (AB 939), requires the Countywide Siting Element (CSE) to identify the areas for the location of potential new solid waste disposal facilities and potential expansions of existing solid waste disposal facilities if it is determined that the existing solid waste disposal capacity within the County will be exhausted within the 15-year planning period. The sites identified in the CSE may or may not be consistent with the General Plans of their respective local jurisdiction. The purpose of this chapter is to provide information on the consistency of sites listed in Chapter 7 of this document with the appropriate local jurisdiction's General Plan. The areas identified may be potentially suitable for the development of new Class III landfills or expansions of existing Class III landfills.

A General Plan is required by State law to be adopted by all cities and counties of the State in order to regulate the land development of property in their jurisdictions. Current State law gives local jurisdictions authority to regulate the use of land within their boundaries. Therefore, the authority to determine the consistency with their General Plan lies with the government of the local jurisdiction in which the project is located.

General Plans typically consist of text and maps designating broad areas for such basic uses as residential, commercial, industrial, agricultural, etc.. Each area of the General Plan is typically described by the purpose of the area, the principal permitted uses, and the uses allowed by a land use permit.

The land use/conditional use permit mechanism allows a local government to review and, if appropriate, place restrictions on an individual project to ensure that the project is suitable for the proposed land use and does not adversely affect neighboring land uses. This type of General Plan provision can also be used to require the modification of an existing use permit should an existing land use be modified. Therefore, the siting and protection of the areas identified for future use as a solid waste disposal facilities are subject to the land use regulations (i.e., General Plan, Zoning, and land use permits) of the local jurisdictions on which the CSE must rely to be implemented. It is during this land use permitting process that the local jurisdiction will make a determination regarding General Plan consistency for a site for which detailed descriptions have been provided.

However, the California Public Resources Code (PRC), set forth a separate definition for General Plan consistency for the purpose of identifying areas in a siting element considered "reserved" for potential new solid waste disposal facility and/or expansion of existing solid waste disposal facilities. Section 41702 of the PRC specifies that "an area is consistent with the city or county general plan if all of the following requirements are met:"

“(a) The city or county adopted a general plan which complies with the requirements of Article 5 (commencing with Section 65300) of Chapter 3 of Division 1 of Title 7 of the Government Code.

(b) The area reserved for a new solid waste facility or the expansion of an existing solid waste facility is located in, or coextensive with, a land use area designated or authorized for solid waste facilities in the applicable city or county general plan.

(c) The land use authorized in the applicable city or county general plan adjacent to or near the area reserved for the establishment of new solid waste transformation or disposal of solid waste or expansion of existing facility is compatible with the establishment or expansion of the solid waste facility.”

Therefore, in the CSE, areas identified are considered “reserved” if: a) the local jurisdiction has made a specific determination that the proposed land use for solid waste disposal site is consistent with its General Plan, or b) use of the area for solid waste disposal site is listed among potential uses for the area in the local jurisdiction’s General Plan. Otherwise, the identified areas are considered “tentatively reserved” and not consistent with the local jurisdiction’s General Plan.

8.2 PROPOSED DEVELOPMENT OR EXPANSION OF TRANSFORMATION SITES

New transformation facilities have not been proposed recently mainly due to the uncertainties of utility deregulation, the current low prices for power, and substantial negative public perception to this technology. Therefore, new facilities are not envisioned in the immediate future and no areas have been "reserved" nor "tentatively reserved" for the purpose of waste transformation.

8.3 RESERVED LANDFILL SITES

The sites, listed below and as identified in Chapter 7 of the CSE as potential expansions of existing Class III landfills or new Class III landfills, are located in the County unincorporated area. As discussed in the following paragraphs, these sites are considered to be consistent with the County of Los Angeles General Plan and, therefore, for the purpose of the CSE, they are “reserved.”

- **Antelope Valley Landfill Expansion**

As discussed in Section 7.5.2 of Chapter 7 of the CSE, the proposed facility has received its land use permit granted by the Los Angeles County Regional Planning Commission, Conditional Use Permit Nos. 85512-(5) and 93041-(5).

- **Chiquita Canyon Landfill Expansion**

The proposed expansion site is designated as "R, Non-Urban" in the Land Use Policy Map LU-1, dated November 1980, of the County of Los Angeles General Plan. Solid waste landfill is one of the land uses allowed in the areas designated as "R, Non-Urban."

- **Elsmere Canyon Landfill**

The proposed Elsmere Canyon Landfill site encompasses areas which are designated as "O, Open-Space," and "R, Non-Urban" in the Land Use Policy Map LU-1, dated November 1980, of the County of Los Angeles General Plan. Solid waste landfill is one of the land uses allowed in the areas designated as "R, Non-Urban" or "O, Open-Space."

- **Lancaster Landfill Expansion**

The proposed expansion site is designated as "R, Non-Urban" in the Land Use Policy Map LU-1, dated November 1980, of the County of Los Angeles General Plan. Solid waste landfill is one of the land uses in the areas designated as "R, Non-Urban."

- **Puente Hills Landfill Expansion**

The proposed expansion site encompasses areas which are designated as "O, Open-Space," and "P, Public/Semi-Public" in the Land Use Policy Map, LU-1, dated November 1980, of the County of Los Angeles General Plan. Solid waste landfill is one of the land uses allowed in the areas designated as "O, Open Space" or "P, Public/Semi Public."

- **Sunshine Canyon Landfill Expansion** (County unincorporated area)

As discussed in Chapter 7 of this document, the proposed expansion of this facility consists of an area which is partially located in the City of Los Angeles and partially in the County unincorporated area. Conditional Use Permit No. 86-312 approved by the Los Angeles County Board of Supervisors on October 21, 1993 allows for initial expansion in the unincorporated areas. This permit also allows further expansion should the City of Los Angeles also approve the requested expansion into the area within the jurisdiction of the City of Los Angeles (see discussion in Section 8.4).

A detailed discussion of these sites is provided in Chapter 7 of the CSE. Tables 8-1 and 8-2 also provide an overview of the current status of each site listed below.

8.4 TENTATIVELY RESERVED LANDFILL SITES

The following sites are identified as "tentatively reserved" in this document, however, the areas not brought into consistency of the local jurisdictions' General Plan by the first five-year revision of the CoIWMP, or subsequent revisions, are required to be removed from the CSE. The local government having jurisdiction over the area may also remove "tentatively reserved" areas from the CSE by requesting the County to do so at the time of the next revision of the document.

Three sites, including the Sunshine Canyon Landfill expansion portion within the City of Los Angeles, have been identified in the CSE as "tentatively reserved." One of the sites may be potentially suitable as a new Class III landfill.

Potential Expansion Sites

- Sunshine Canyon
(City of Los Angeles portion,
also see Section 8.5)
- Scholl Canyon

Potential New Sites

- Blind Canyon

A detailed discussion of these sites is provided in Chapter 7 of the CSE. Tables 8-1 and 8-2 also provide an overview of the current status of each site listed above.

Table 8-1

**SUMMARY OF THE CURRENT STATUS OF
POTENTIAL NEW CLASS III LANDFILLS**

SITE	JURISDICTION	LAND USE PERMIT STATUS	EIR STATUS	COMMENTS
Blind Canyon	Counties of Los Angeles and Ventura	None	See Note 1	See Chapter 7, Section 7.4 and Table 7-2.
Elsmere Canyon	County of Los Angeles	None	See Note 2	See Chapter 7, Section 7.4 and Table 7-3.

Note:

Note 1 - A Program EIR was prepared to address environmental impacts for several potential sites including Blind Canyon (see Chapter 7, Section 7.4). However, additional environmental documents may be required for this site during the land use permitting process.

Note 2 - The Omnibus Parks and Land Management Act of 1996, which was enacted in November 1996, prohibits the transfer of Angeles National Forest lands (by exchange or otherwise) for the use as a solid waste landfill. Previously, a draft EIR was prepared for a fill area which included Angeles National Forest area.

Table 8-2

**SUMMARY OF THE CURRENT STATUS OF
POTENTIAL EXPANSIONS OF EXISTING CLASS III LANDFILLS**

SITE	JURISDICTION	LAND USE PERMIT STATUS	EIR STATUS	COMMENTS
Antelope Valley	County of Los Angeles	CUP Nos. 85512-(5) and 93041-(5) granted on 4/8/92 and 12/1/93, respectively	EIR was certified on 4/8/92	See Chapter 7, Section 7.5.2 and Table 7-4.
Chiquita Canyon	County of Los Angeles	application filed 2/17/89	EIR was certified by RPC on 9/11/96; the certification was appealed to the BoS and a decision is pending	See Chapter 7, Section 7.5.2 and Table 7-5. "RPC" means the Los Angeles County Regional Planning Commission. "BoS" means the Los Angeles County Board of Supervisors.
Lancaster	County of Los Angeles	application filed 8/18/93	draft EIR is expected to be released by fall 1997	See Chapter 7, Section 7.5.2 and Table 7-6.
Puente Hills	County of Los Angeles	current CUP No. 92-250-(4) expires 11/1/2003; a new CUP is required	EIR was certified on 11/25/92; a new EIR may be required	See Chapter 7, Section 7.5.2 and Table 7-7.
Scholl Canyon	City of Glendale	pending technical studies	pending technical studies	See Chapter 7, Section 7.5.2 and Table 7-8.
Sunshine Canyon	County and City of Los Angeles	The City of Los Angeles has granted BFI permission to file an application for a CUP. An application has been filed with the City for the proposed expansion and the draft EIR is currently under preparation.	The County Board of Supervisors granted CUP No. 86-312 on 10/21/93 for expansion in the County unincorporated area.	See Chapter 7, Section 7.5.2 and Table 7-9.

CHAPTER 9 OUT-OF-COUNTY DISPOSAL

9.1 INTRODUCTION AND PURPOSE

9.1.1 Introduction

As discussed in **Chapter 1 (Subsection 1.4.2.4)** and consistent with the goals established in Chapter 2, the primary goal of the Los Angeles County CSE is to address the solid waste disposal needs of the 88 cities in Los Angeles County and the County unincorporated communities for a 15-year planning period. Adequate disposal capacity has been identified and discussed in Chapters 4 and 7 to address these needs, through utilization of existing in-County solid waste disposal facilities, expansion of existing facilities, and development of new facilities under various scenarios.

However, past and current experience in siting new landfills and expanding existing landfills underscores the difficulty of achieving this goal. It is recognized that most (or all) of the sites identified may encounter strong opposition during the permitting process and that not all the sites may be approved. Also, even if a site is successfully permitted, the total approved capacity and daily capacity may be less than projected in the CSE's analysis. Additionally, adequate reserve daily capacity should be provided to handle daily and seasonal variations in waste quantities, unanticipated disposal needs, and to maintain a competitive environment .

Therefore, it is important to incorporate into the planning process a number of alternatives to ensure that solid waste disposal, an essential public service, continues to be provided to all residents and businesses in Los Angeles County without interruption during the planning period and in the long term. One of these alternatives is the development of out-of-County solid waste disposal facilities, together with the infrastructure necessary to provide access to these facilities.

9.1.2 Purpose

The purpose of this Chapter is to describe existing and proposed out-of-County solid waste disposal facilities and to describe how jurisdictions in Los Angeles County may use the out-of-County disposal option to achieve their solid waste management goals. As indicated in Chapter 4, out-of-County disposal is not only essential for the disposal of the residual solid waste originating within Los Angeles County in the future, but also to supplement the County's current disposal capacity. However, prudence and responsibility dictate that jurisdictions in Los Angeles County should strive to develop adequate in-County landfill disposal and transformation capacity, provided that suitable sites exist within the County for these types of facilities, because in-County capacity can better

guarantee the provision of solid waste disposal services reliably and economically. The potential dependence on out-of-County disposal may present serious health and safety as well as economic risks to jurisdictions in Los Angeles County, and therefore, the limitations of this waste management option must be well understood. As such, this chapter also describes the limitations of out-of-County disposal as a means of guaranteeing reliable and economical solid waste disposal capacity to serve the needs of all the residents of Los Angeles County.

9.2 LIMITATIONS OF THE OUT-OF-COUNTY DISPOSAL OPTION

While jurisdictions in Los Angeles County should strive to provide adequate in-County solid waste disposal (landfill and transformation) capacity to serve the needs of their residents and businesses, the County as a whole can benefit from the utilization of out-of-County disposal facilities as a means to supplement and extend the life of in-County disposal capacity. However, the following issues should be carefully considered when evaluating out-of-County disposal as a part of a jurisdiction's solid waste management strategies.

9.2.1 Restrictions/Bans on the Importation of Solid Waste

Jurisdictions throughout the State and the Nation are becoming increasingly protective of the solid waste disposal capacity within their boundaries. This is due to the difficulty in permitting new or expanded capacity as a result of strong public opposition and stringent environmental regulations. One of the more common means of protecting existing capacity has been through the imposition of restrictions or bans on the importation of solid waste from other jurisdictions. These restrictions on waste importation may take the form of a "wasteshed" or prescribed area from which waste designated for disposal may originate; limits on the amount of waste from individual jurisdictions; host fees; and/or outright bans on the importation of solid waste.

Local jurisdictions, however, have limited authority to restrict the flow of solid waste across their boundaries. In accordance with recent decisions by the United States Supreme Court, solid waste is an object of commerce and, therefore, is subject to the commerce clause of the United States Constitution. This means that jurisdictions (cities, counties or states) cannot prohibit the free flow of commodities, such as solid waste, across jurisdictional boundaries. However, individual jurisdictions may have the authority to impose restrictions or bans on the importation of solid waste at disposal facilities that they own.

In an effort to increase their ability to control the flow of solid waste across their boundaries and to fulfill their solid waste management objectives, jurisdictions are turning to the Federal government to grant them this authority. As a result, a number of legislative proposals have been introduced at the Federal level which, if enacted, could

provide jurisdictions with some "flow control" authority.

As previously indicated, the objective of the Action Plan and the CSE is to provide for adequate disposal capacity to handle the needs of County jurisdictions, preferably within Los Angeles County, while also recognizing that out-of-County disposal capacity is essential. As such, imposing restrictions on the importation of solid waste into Los Angeles County could cause out-of-County jurisdictions to also place restrictions on solid waste importation from jurisdictions in Los Angeles County for disposal at their facilities. This could have a severe negative impact on Los Angeles County in the event that in-County facilities identified in Chapter 7 are not developed. Efforts must be made to ensure that the current flexibility in regards to importation/exportation of solid waste is maintained in Los Angeles County.

9.2.2 Export Agreements

In some instances, jurisdictions have secured export agreements with out-of-County disposal facility operators in an effort to ensure that the disposal needs of their residents are guaranteed over a period of time. An export agreement is a negotiated agreement between a jurisdiction or its waste hauler and a solid waste disposal facility owner/operator, providing for the disposal of a predetermined amount of solid waste at the facility. This serves to reserve disposal capacity to the party disposing the waste at a fixed cost, and to guarantee the owner specific quantities of incoming waste. However, securing an export agreement will not necessarily guarantee the availability of the disposal capacity through the term of the agreement. As indicated above, proposed Federal legislation, if enacted, may grant jurisdictions additional powers to restrict or regulate the flow of waste. Additionally, a solid waste disposal facility that is forced to cease operations due to financial considerations; operational problems; changes in local, state or federal regulations; or political considerations, may not be able to continue to honor an export agreement.

9.2.3 Economic Factors

It is the cost to their residents and businesses that ultimately determines where jurisdictions decide to dispose of their solid waste. Total system costs, which typically include collection; transportation; processing; and disposal, need to be evaluated by jurisdictions to determine the economic feasibility of using a particular disposal facility. A tipping fee, the rate charged for each ton of solid waste disposed, is a major factor to jurisdictions evaluating disposal at facilities located in adjacent counties or states. Even if tipping fees at these facilities are comparably lower than fees charged at local disposal facilities, jurisdictions must consider the impact of additional costs that may be incurred through transfer/loading operations, which may also charge a "per-ton" handling fee. Furthermore, as the distance to a disposal facility increases, the cost to transport solid waste to the facility tends to increase proportionally.

Additionally, as a means to generate revenue, host fees and/or other taxes on imported waste may be imposed by a jurisdiction where a solid waste disposal facility is located. This practice is becoming more common nationwide as host jurisdictions realize the revenue generation potential of accepting imported waste, and as other sources of revenue become scarce. The possibility of any such action by the host jurisdiction and its economic impact on the jurisdiction exporting the solid waste must be carefully considered when evaluating the out-of-County disposal option as a part of a jurisdiction's waste management strategies.

Based on the foregoing, it becomes clear that jurisdictions in Los Angeles County must not rely solely on out-of-County disposal to meet the disposal needs of their residents and businesses. Out-of-County solid waste disposal facilities should be viewed as an alternative to in-County disposal capacity in the event that anticipated in-County capacity is not attained and/or as a means to extend the life of in-County landfills. Dependence on out-of-County capacity may place jurisdictions in the position of paying ever increasing fees and transportation costs that are not under their control. Los Angeles County would like to ensure that in-County disposal capacity continues to be available so that jurisdictions can make policy decisions about out-of-County disposal within a stable economic environment.

9.3 EXPORTATION OF SOLID WASTE TO ADJACENT COUNTIES

During 1996, three major Class III landfills closed in Los Angeles County (Lopez Canyon and BKK Landfills, and the Class III portion of the Azusa Landfill) and one reopened (Sunshine Canyon landfill). These changes resulted in a net reduction of almost 16,000 tons (about one fourth) of the County's daily permitted capacity and caused a shift in the solid waste disposal patterns in Los Angeles County, including an increase in the use of out-of-County disposal facilities. These events underscore the dynamic nature of solid waste management in Los Angeles County and the importance of maintaining flexibility on the importation/exportation of solid waste across jurisdictional boundaries.

Flexibility on importation/exportation of solid waste is critical to Los Angeles County in light of the difficulty associated with permitting new disposal capacity. However, flexibility may be limited as individual jurisdictions attempt to manage existing disposal capacity within their boundaries.

In Southern California, a number of counties adjacent to Los Angeles County have placed restrictions or bans on importation of solid waste into their jurisdictions. For example, San Bernardino County has an ordinance in place which prohibits importation of solid waste to County-owned facilities, with the exception of waste from the Los Angeles County communities in the vicinity of Wrightwood.

Orange County owns and/or operates all landfills located within its boundaries. Until recently, Orange County had an ordinance in place which prohibited the importation of solid waste for disposal at their landfills. However, due to existing financial constraints, on June 27, 1995, Orange County amended the existing ordinance to allow the importation of solid waste into Orange County provided waste haulers importing waste have disposal contracts approved by the Orange County Board of Supervisors. As of January 1997, Orange County has three contracts for disposal of out-of-Orange-County solid waste at their Bowerman and Olinda/Olinda Alpha Landfills. Approximately 4,650 tpd, six-day-per-week average, of Orange County's daily permitted disposal capacity is available to out-of-Orange County waste.

As of January 1997, Ventura County does not have any ordinance prohibiting the importation of out-of-County solid waste. However, traditionally, very limited amounts of solid waste have been exported from Los Angeles County to Ventura County landfills. Typically, these small quantities of solid waste originate in the Cities of Agoura Hills and Westlake Village, and a number of communities in the County unincorporated area and the City of Los Angeles adjacent to the County of Ventura.

Additional quantities of solid waste are also exported to Riverside County and to the ECDC Environmental Sanitary Landfill in Utah. However, these exports have not reached a significant level.

The following list identifies those neighboring counties which have adopted policies (ordinances) restricting importation of solid waste into their county.

<u>County</u>	<u>Ordinance #</u>	<u>Comments</u>
Kern	G-5940	Prohibits importation of solid waste at County-owned facilities.
Orange	2622	Prohibits importation of solid waste at County facilities without a contractual agreement approved by the Board of Supervisors.
San Bernardino	3553	Prohibits importation of solid waste at County-owned facilities. Accepts waste from the Los Angeles County communities in the vicinity of Wrightwood.

9.4 INFRASTRUCTURE REQUIREMENTS

9.4.1 Transportation Modes

There are a number of proposed out-of-County solid waste disposal facilities, which are identified in Section 9.5 of this chapter, that may be available for disposal of solid waste generated in Los Angeles County. In order to evaluate out-of-County disposal, it is necessary to determine how waste will be transported to these distant locations.

9.4.1.1 Truck Transport

The transportation of solid waste to out-of-County locations may be achieved by truck. Trucks may transport waste directly from the curbside or receive loads from transfer stations or material recovery facilities. This may be limited to outlying County areas exporting waste to a landfill located in an adjacent county.

The County of San Bernardino, for example, accepts waste from the Los Angeles County unincorporated communities in the vicinity of Wrightwood, which are located just outside of San Bernardino County limits. In other cases, however, market forces and other factors may make even longer hauls worthy of consideration. For example in 1995, jurisdictions from the County of San Diego exported solid waste to the BKK and Azusa Landfills, located in the Cities of West Covina and Azusa, respectively, and to the Lancaster Landfill located in the unincorporated area of the Antelope Valley.

Currently, a majority of in-County existing solid waste stations can be used to transport solid waste by truck to distant landfills. Economic factors are the major determinants in the utilization of these facilities.

9.4.1.2 Rail Transport

Solid waste may also be transported to out-of-County disposal facilities by train, commonly known as the "waste-by-rail system." It is an alternative means of solid waste transportation which could provide jurisdictions in Los Angeles County with access to a greater array of landfills that would otherwise be inaccessible or extremely expensive. In concept, the waste-by-rail system has the potential to reduce labor costs, equipment and vehicle costs, and the amount of time typically associated with the transportation of waste to out-of-County landfills by truck.

9.4.2 Loading Facilities

Transportation of solid waste to out-of-County locations would require the use of loading facilities. With a truck system, transfer stations enable waste to be transported to disposal facilities with increased efficiency and cost-effectiveness. Transfer stations provide

greater flexibility and potential savings since recyclable materials can be recovered, loads can be maximized through compaction, and waste can be more conveniently transported at off-peak hours. Rail-loading facilities are similar to transfer facilities in that the same flexibility and potential savings may be achieved. The difference is that solid waste is transferred from trucks to rail cars rather than from trucks to trucks.

From an economic perspective, solid waste stations with rail-loading capabilities are superior to solid waste stations without rail-loading capabilities because solid waste may be transported to distant out-of-County landfills by rail at a substantially lower cost. Since economic factors are a major consideration in the exportation of solid waste to distant landfills, the appropriate level of rail-loading facilities must be developed in Los Angeles County. Since economic factors are a major consideration in the exportation of solid waste to distant landfills, the appropriate level of rail-loading facilities must be developed in Los Angeles County. Without these rail-loading facilities in place, solid waste exportation by rail to out-of-County disposal facilities may not be feasible. Proposed rail-loading facilities to support out-of-County solid waste disposal facilities are described in Section 9.6 of this chapter.

9.5 OUT-OF-COUNTY LANDFILL FACILITIES

Currently there are several existing out-of-County landfills, some of which are out of the State of California, that have the capability to accept waste by rail and/or truck from Los Angeles County. In addition to these landfills, there are also a number of proposed out-of-County landfill projects that may be able to serve the cities and County of Los Angeles. Table 9-1 provides a brief summary of the major existing and proposed out-of-County Class III landfills.

Utilization of these out-of-County facilities could, depending on the amount of waste transported, preserve/extend the life of in-County solid waste disposal capacity. That is, for every ton of solid waste that is transported out of the County for disposal, a similar amount of in-County disposal capacity is not consumed or impacted.

Several out-of-County landfill projects have been in the planning stages since 1988 and there has been much work done to establish a system that is competitive with current disposal practices. In 1995 no waste was exported out-of-County on a regular basis by rail cars, although there have been some demonstration projects and other small scale shipments of contaminated soil. Small (approximately 50 tons per day) shipments of waste by rail to the ECDC Environmental Sanitary Landfill in Utah began in the second half of 1996.

As listed below, a number of out-of-County landfill sites have been suggested for possible use by jurisdictions in Los Angeles County. The locations of these sites are shown on the map identified as Figure 9-1. A summary of the current status of proposed and potential

expansion of out-of-County landfills is shown in Table 9-2. Information on each facility is provided in the fact sheets at the end of this chapter. These fact sheets are identified as Tables 9-3 through 9-21.

Existing Landfills:

- Bowerman Landfill, Orange County
- Butterfield Station Landfill, Arizona
- Columbia Ridge Landfill, Oregon
- Copper Mountain, Arizona
- ECDC Environmental Sanitary Landfill, Utah
- El Sobrante Landfill, Riverside County
- Franconia Landfill, Arizona (Permitted, but not Operational)
- La Paz Landfill, Arizona
- Lockwood, Nevada
- Olinda and Olinda Alpha Landfill, Orange County
- Prima Deshecha Canada Landfill, Orange County
- Roosevelt Landfill, Washington
- Simi Valley Landfill, Ventura County
- Toland Road Landfill, Ventura County

Proposed Landfills:

- Bolo Station Landfill, San Bernardino County
- Campo Landfill, San Diego County
- Eagle Mountain Landfill, Riverside County
- Mesquite Regional Landfill, Imperial County

Some proponents of the projects listed above are also proposing to develop materials recovery facilities (MRFs) and/or solid waste stations with rail loading capability within the Los Angeles County area. Some of the proposed projects incorporate sorting of wastes at a local MRF as well as the loading of containerized wastes onto railroad cars and/or trucks for shipment to out-of-County landfills for disposal. Section 9.6 discusses proposed rail-loading facilities and MRFs with rail-loading capability in Los Angeles County.

9.6 SOLID WASTE STATIONS WITH RAIL-LOADING FACILITIES

This Section discusses the facilities that may be used in conjunction with the landfill sites discussed in Section 9.5. Currently, there are no existing solid waste stations with rail-loading facilities in Los Angeles County. However, there are several proposals for development of new solid waste stations with this capability, upgrading existing facilities to add the rail-loading capability, and for the use of existing intermodal facilities

(currently operating for other commercial purposes), for the transport of waste by rail cars. It is important to note that development of solid waste stations with rail-loading capability in Los Angeles County is essential for utilization of distant out-of-County landfills with rail access.

The following subsections provide a description of proposed solid waste stations with rail-loading capabilities for operation in Los Angeles County. Figure 9-2 shows the locations of these facilities.

9.6.1 Central Los Angeles Solid Waste Station - City of Los Angeles

This is an existing MRF located in the central area of Los Angeles. The facility is owned and operated by Browning Ferris Industries (BFI). The site is referred to as the BLT Transfer Station, which currently does not have rail-loading capability. BFI is considering expanding its operation to provide for rail-loading operation for transporting residual solid waste to distant out-of-County landfills with rail access. If waste were to be shipped from this location, the waste would most likely be sent to remote landfills owned by BFI, such as the La Paz Landfill in Arizona.

9.6.2 East Los Angeles Intermodal Facility - City of Commerce

This is an existing intermodal rail-loading facility in the City of Commerce. The facility is owned and operated by the Union Pacific Railroad, and is currently used for commercial purposes other than the transport of solid waste by rail. This facility can be used for the loading of containers with solid waste onto rail cars for transport to distant out-of-County landfills with rail access. The containers would be filled at existing and or proposed solid waste stations. Utilization of this facility may require a Solid Waste Facility Permit.

9.6.3 Hobart Intermodal Facility - City of Vernon

The Hobart Intermodal Facility is an existing intermodal facility located in the City of Vernon and is owned and operated by the Atchison, Topeka, and Santa Fe Railway Company. The facility is currently used for commercial purposes other than the transport of solid waste by rail. This facility can be used for the loading of containers with solid waste onto rail cars for transport to distant out-of-County landfills with rail access. The containers would be filled at existing and or proposed solid waste stations. Utilization of this facility may require a Solid Waste Facility Permit. The facility is located in a commercial/industrial area and is adjacent to the Long Beach Freeway and to the north of East 26th Street.

9.6.4 Industry Intermodal Facility - City of Industry

This is an existing intermodal facility located in the City of Industry. The facility is owned by the Southern Pacific Transportation Company and is currently used for commercial purposes other than the transport of solid wastes by rail. This facility can be used for the loading of containers with solid waste onto rail cars for transport to distant out-of-County landfills with rail access. The containers would be filled at existing and/or proposed solid waste stations. Utilization of this facility may require a Solid Waste Facility Permit. The site is bounded to the north by Valley Boulevard and to the south by San Jose Creek, and is to the west of Azusa Avenue.

9.6.5 Industry Solid Waste Station - City of Industry

The proposed facility with a capacity of 5,700 tpd was to be sited south of Valley Boulevard and east of Grand Avenue in the City of Industry. However, the proposal encountered strong opposition from the Cities of Walnut and Diamond Bar. The City of Industry is no longer pursuing this site and has yet to identify a new site.

9.6.6 Pomona Materials Recovery Facility - City of Pomona

The City of Pomona Public Works Department is proposing to develop a regional materials recovery facility with waste-by-rail capability at a site within the City. The proposed site location is near the intersection of Mission Boulevard and the Corona Expressway. The proposed facility would have a design capacity to process a maximum of 6,000 tpd of solid waste. Initially, the project would be phased to commence operation with a capacity of approximately 1,800 tpd. The proposal calls for the residual waste to be transported to local landfills for disposal. Rail-haul to out-of-County landfills would occur when local landfill capacity is exhausted and/or the out-of-County sites become operational.

A final EIR was prepared for the project which was certified by the Pomona City Council on July 29, 1996. However, due to strong public opposition the City Council voted to place the project on the municipal ballot for voter approval in the spring of 1997.

9.6.7 Puente Hills Materials Recovery and Rail-Loading Facility - County Unincorporated Area

This project is proposed by the County Sanitation Districts of Los Angeles County (CSD). The project site is located in the County unincorporated area adjacent to the Puente Hills Landfill and near the City of Whittier. The MRF would ultimately be able to process 4,000 tpd-6, with residual waste disposed at the Puente Hills landfill or distant out-of-County landfills with rail access.

The Conditional Use Permit (CUP) for the project was approved by the Board of Supervisors on July 20, 1993. Subsequently, lawsuits were filed by homeowner groups and others challenging the adequacy of the final EIR. The last remaining appeal regarding the courts' decisions on the matter was withdrawn on January 13, 1997. This action resolved in the CSD's favor all of the CEQA lawsuits against the CSD relating to the Puente Hills MRF. The CUP needs to be re-authorized by the Board of Supervisors for the project to move forward.

9.6.8 Southern Pacific Intermodal Facility - Long Beach

This is an existing intermodal facility located in the City of Long Beach. The facility is owned by the Southern Pacific Transportation Company and is currently used for commercial purposes other than the transport of solid wastes by rail. This facility can be used for the loading of containers with solid waste onto rail cars for transport to distant out-of-County landfills with rail access. The containers would be filled at existing and or proposed solid waste stations. Utilization of this facility may require a Solid Waste Facility Permit. This facility is located near the intersection of Sepulveda Boulevard and Willow Street.

9.6.9 Rail-Cycle, L.P., Solid Waste Station - City of Commerce

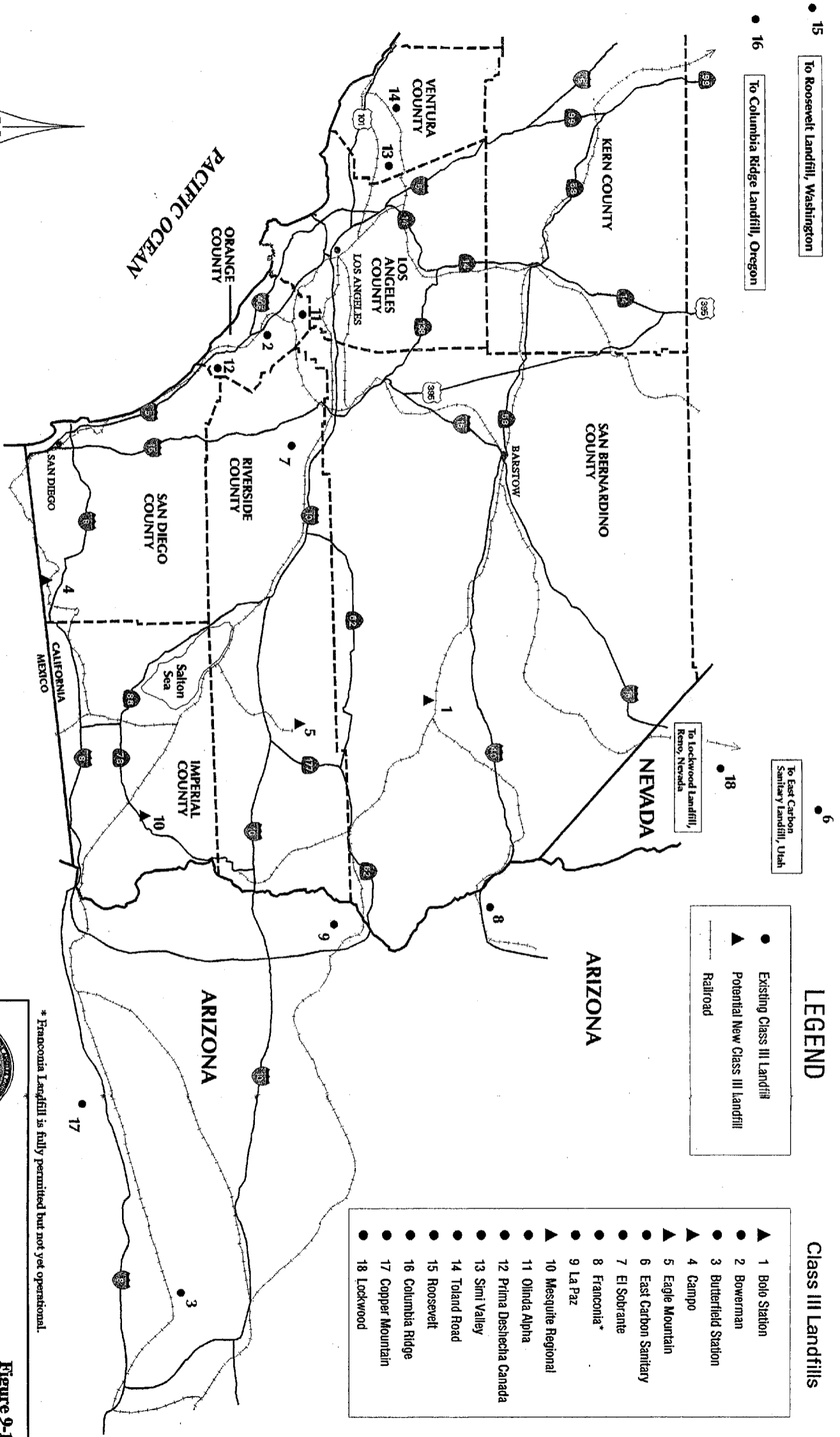
This project is proposed by RailCycle, L.P. and consists of a MRF with rail-loading capability in the City of Commerce. The facility would have the capability to handle up to 4,200 tons of solid waste per day. The City approved the proposed facility's CUP in 1992 which has since been extended on a semi-annual basis. The project proponents have obtained all the necessary permits for construction and operation of the facility. Some preliminary site work is currently in progress, however, proponents expect the construction of the facility to be tied into the approval of the Bolo Station Landfill. This proposed facility is one component of the RailCycle system, which also includes the Bolo Station Landfill in San Bernardino County, and Franconia and Butterfield Station Landfills in Arizona.

9.6.10 Vernon Materials Recovery and Transfer Facility - City of Vernon

This project was originally proposed by SERVCON - Vernon, Inc., with a daily design capacity of 6,000 tons. The City of Vernon had previously granted a Conditional Use Permit for the project. However, the CUP validation date expired on July 21, 1994 and an application for extension has not been filed. The proposed site for the facility, located at 3677 Bandini Boulevard, has been purchased by Burlington Northern Santa Fe Railway Company, one of the RailCycle project proponents, and is currently being used for trailer storage. The City of Vernon continues to pursue development of a MRF in other areas of the City and has had some preliminary discussions with potential project proponents.

9.6.11 Western Waste Industries Transfer Station - City of Carson

The existing Western Waste Industries, Inc., solid waste transfer station in the City of Carson is one of the facilities proposed by the proponents of the RailFill project as a location for loading containers with solid waste and trucking them to nearby intermodal facilities. This facility is a part or component of the California RailFill system, which was previously known as California InteRail. The proponents of the RailFill project have formed a general partnership which is composed of Western Waste Industries, Inc., Southern Pacific Environmental Systems, Inc., and Gold Fields Mining Corporation.



15 To Roosevelt Landfill, Washington

16 To Columbia Ridge Landfill, Oregon

6 To East Carbon Sanitary Landfill, Utah

18 To Lockwood Landfill, Reno, Nevada

LEGEND

- Existing Class III Landfill
- ▲ Potential New Class III Landfill
- Railroad

Class III Landfills

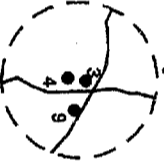
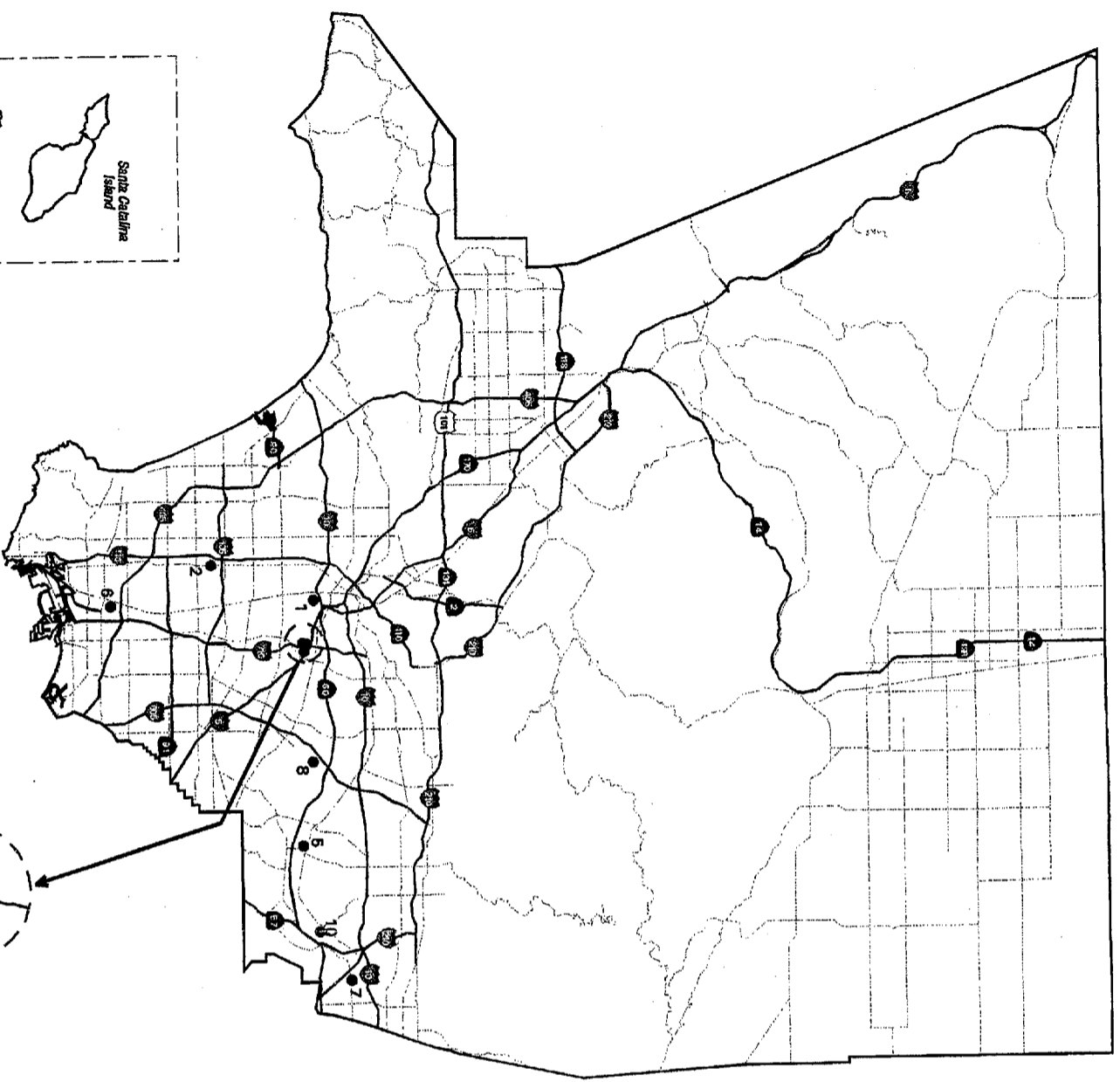
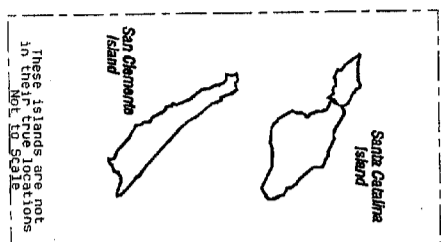
- ▲ 1 Bolo Station
- 2 Bowerman
- 3 Butterfield Station
- ▲ 4 Campo
- ▲ 5 Eagle Mountain
- 6 East Carbon Sanitary
- 7 El Sobrante
- 8 Franconia*
- 9 La Paz
- ▲ 10 Mesquite Regional
- 11 Olanda Alpha
- 12 Prima Deshecha Canada
- 13 Simi Valley
- 14 Toland Road
- 15 Roosevelt
- 16 Columbia Ridge
- 17 Copper Mountain
- 18 Lockwood

* Franconia Landfill is fully permitted but not yet operational.



Location of Class III Landfill Sites Outside Los Angeles County

Figure 9-1



LEGEND

EXISTING SOLID WASTE STATIONS WITH PROPOSED RAIL-LOADING CAPABILITY

- 1. Central Los Angeles Solid Waste Station - Los Angeles
- 2. Western Waste Industries Transfer Station - Carson *

PROPOSED SOLID WASTE STATIONS WITH EXISTING RAIL-LOADING CAPABILITY

- 3. East Los Angeles Intermodal Facility - Commerce
- 4. Hobart Intermodal Facility - Vernon
- 5. Industry Intermodal Facility - Industry
- 6. Southern Pacific Intermodal Facility - Long Beach

PROPOSED SOLID WASTE STATIONS WITH (PROPOSED) RAIL-LOADING CAPABILITY

- 7. Pomona Materials Recovery Facility - Pomona
- 8. Puente Hills Materials Recovery and Rail-Loading Facility - County Unincorporated Area
- 9. Rail-Cycle, L.P., Solid Waste Station - Commerce
- 10. Industry Solid Waste Station - Industry (Location to be determined)



* Note: This facility is proposed for loading containers with solid waste and trucking them to an existing intermodal facility.



Location of Solid Waste Stations with Rail-Loading Capabilities in Los Angeles County

Figure 9-2

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Table 9-1

SUMMARY OF EXISTING AND PROPOSED OUT-OF-COUNTY LANDFILLS

SITE/ LOCATION	OWNER/OPERATOR	RAIL ACCESS AVAILABLE	DAILY DISPOSAL RATE	ESTIMATED DISPOSAL CAPACITY
EXISTING OUT-OF-COUNTY LANDFILLS				
Bowerman * Orange County, CA	Orange County Integrated Waste Management Dept.	No	6,675 tpd current 8,000 tpd	73 million tons
Butterfield Arizona	WMX	Yes	unlimited	44 million tons
Columbia Ridge Oregon	WMX	Yes	unlimited	60 million tons
Copper Mountain Arizona	Sanifill (USA Waste)	No	unlimited	20.7 million tons
East Carbon Sanitary Landfill Utah	Laidlaw/ ECDC	Yes	unlimited	260 million tons
El Sobrante ** Riverside County, CA	Western Waste Industries (USA Waste)	No	4,000 tpd	8 million tons (108 million tons proposed)
Franconia **** Arizona	WMX	Yes	unlimited	10 million tons
La Paz Arizona	La Paz County / BFI	Yes	unlimited	20 million tons (80 million tons proposed)
Lockwood Nevada	Refuse, Inc.	No	3,500 tpd start-up unlimited max.	200 million tons
Olinda and Olinda Alpha * Orange County, CA	Orange County Integrated Waste Management Dept.	No	6,675 tpd current 8,000 tpd	41.2 million tons
Prima Deshecha Canada *** Orange County, CA	Orange County Integrated Waste Management Dept.	No	4,000 tpd .	46.3 million tons
Roosevelt Washington	Rabanco	Yes	unlimited	120 million tons
Simi Valley Ventura County, CA	WMX / Simi Valley Landfill Recycling Center	No	3,000 tpd	8.1 million tons
Toland Road *** Ventura County, CA	Ventura Regional Sanitation District	No	1,500 tpd	15 million tons

* Orange County has signed contracts for disposal at this facility of solid waste originating outside Orange County. Under these contracts with private waste haulers, up to approximately 5,000 tpd of solid waste may be imported from other counties for disposal at Orange County facilities.

** Of the 108 million ton proposed expansion, 40 percent of the daily and total waste capacity would be reserved for Riverside County, and the remaining 60 percent could be used to dispose waste from areas outside Riverside County.

*** Out-of-County waste is currently not accepted at this facility.

**** Landfill is fully permitted but not yet built

Table 9-1 (continued)

SUMMARY OF EXISTING AND PROPOSED OUT-OF-COUNTY LANDFILLS

SITE/ LOCATION	OWNER/OPERATOR	RAIL ACCESS AVAILABLE	PROPOSED DAILY DISPOSAL RATE	ESTIMATED DISPOSAL CAPACITY
PROPOSED OUT-OF-COUNTY CLASS III LANDFILLS				
Bolo Station Landfill San Bernadino County, CA	Rail-Cycle: WMX and Burlington Northern and Santa Fe Railway Co.	Yes	21,000 tpd (3,000 tpd startup)	430 million tons
Campo Landfill San Diego County, CA	Campo Band of Mission Indians and Muht-Hei, Inc. (a Tribal Corporation); operator not known	Yes	3,000 tpd	28 million tons
Eagle Mountain Landfill Riverside County, CA	Mine Reclamation Corp.	Yes	20,000 tpd	700 million tons
Mesquite Regional Landfill Imperial County, CA	Western Waste Ind. (USA Waste), So. Pacific, Gold Fields Mining Inc. and Arid Operations	Yes	20,000 tpd (4,000 tpd startup)	624 million tons

Source: Los Angeles County Department of Public Works, Environmental Programs Division, February 1997

Table 9-2

**SUMMARY OF THE CURRENT STATUS OF
PROPOSED OUT-OF-COUNTY CLASS III LANDFILLS**

SITE	JURISDICTION	LAND USE PERMIT STATUS	EIR STATUS	COMMENTS
Bolo Station Landfill	San Bernadino County	Approved with provision that CUP is not operative until implementation of Business Tax	Approved with provision that EIR is not operative until implementation of Business Tax	See Chapter 9, Table 9-15.
Campo Landfill	San Diego County	Must obtain site specific acceptance for being located in a seismic impact zone.	Must obtain site specific acceptance for being located in a seismic impact zone.	See Chapter 9, Table 9-16.
Eagle Mountain Landfill	Riverside County	Original CUP approved in 1992, revoked when EIR needed to be redone, expected to be reissued in late 1997	Final EIR released for public comment on January 15, 1997. Board of Supervisors is expected to make a decision on the project by June 1997.	See Chapter 9, Table 9-17.
Mesquite Regional Landfill	Imperial County	CUP approved by Imperial County Board of Supervisors in September 1995. The validity of the CUP will depend upon the judges' ruling on the addendum.	EIR approved by Imperial County Board of Supervisors in September 1995. A lawsuit required that the EIR be further clarified. An addendum was issued and a final judgement, currently in litigation, is expected soon.	See Chapter 9, Table 9-18.

Table 9-2 (continued)

**SUMMARY OF THE CURRENT STATUS OF
POTENTIAL EXPANSIONS OF OUT-COUNTY EXISTING CLASS III LANDFILLS**

SITE	JURISDICTION	LAND USE PERMIT STATUS	EIR STATUS	COMMENTS
El Sobrante Landfill	Riverside County	There is no CUP. Riverside County is exempt from filing a CUP or LUP.	Final resolution regarding the approval of the EIR is expected October 29, 1996.	See Chapter 9, Table 9-7.
La Paz Landfill	La Paz County, Arizona	Pending technical studies.	Pending technical studies.	See Chapter 9, Table 9-9.

Table 9-3
BOWERMAN LANDFILL (existing)
FACT SHEET

1. **FACILITY INFORMATION**

Owner: Orange County

Operator: Orange County Integrated Waste Management Dept.

Location: unincorporated Orange County (north of the City of Irvine)

2. **FACILITY REMAINING PERMITTED CAPACITY** (as of January 1, 1996)

Remaining Permitted Capacity: 73.7 million tons 118 million cubic yards

Estimated Remaining Life: approximately 29 years (based upon Orange County disposal projections)

3. **MAXIMUM PERMITTED DAILY CAPACITY**

Daily: varies¹

Amount devoted for imported waste: 2,100 tpd or 31% of permitted daily capacity (starting January 1997)

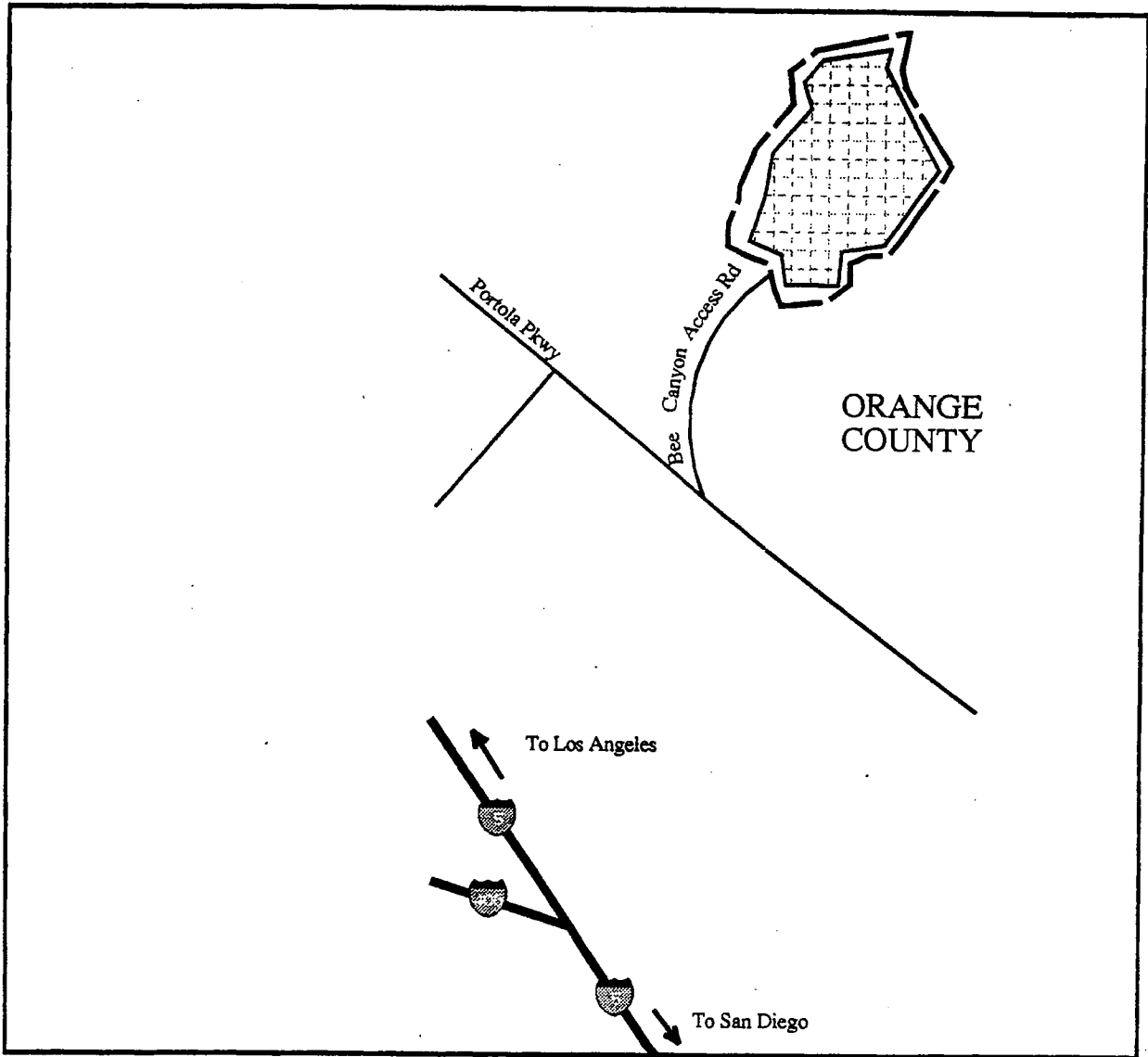
4. **FUTURE LAND USE** - unknown

5. **REMARKS**




Orange County has signed a 5-year contract (from January 1, 1996 through December 31, 2000) and a 10-year contract (from January 1, 1996 through December 31, 2005) with Waste Management of California and Cal San & BLT Industries, respectively, for disposal at this facility of solid waste originating outside Orange County. Under these contracts, Waste Management of California and Cal San & BLT Industries are committed to deliver a minimum of 331,704 and 586,500 tons per year (1,301 and 2,300 tons per day, respectively, 5-day week) of solid waste, respectively, to this landfill for disposal. The contracts specify that Waste Management of California must pay a disposal fee of \$18 per ton for annual tonnages up to 364,874 tons and \$27 per ton in excess of this tonnage; and Cal San & BLT Industries must pay a disposal fee of \$18 per ton for annual tonnages up to 645,150 tons and \$27 per ton in excess of this tonnage.

¹ 6,775 tons per day (6-day week) is the permitted tonnage for 1997. A Settlement Agreement between the County of Orange and the City of Irvine provides for a 1.75% annual increase in tonnage from the 6,000 tons per day permitted in 1989 to a maximum of 8,500 tons per day (6-day week).

Note: Calculated or assumed quantities are shown in brackets.



LEGEND

-  Existing Disposal Area
-  Limits of Disposal Areas
-  Property Boundary



SCALE 1" = 3000'

Data contained in this map was produced in whole or part from the Los Angeles County Department of Public Works' digital database.



FRANK R. BOWERMAN LANDFILL
 Los Angeles County Countywide Siting Element

Figure 9-3

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Table 9-4
BUTTERFIELD STATION LANDFILL (existing)
FACT SHEET

1. **FACILITY INFORMATION**
Owner: Waste Management of Arizona, Inc. **Operator:** Waste Management of Arizona, Inc.
Location: near Phoenix, Arizona

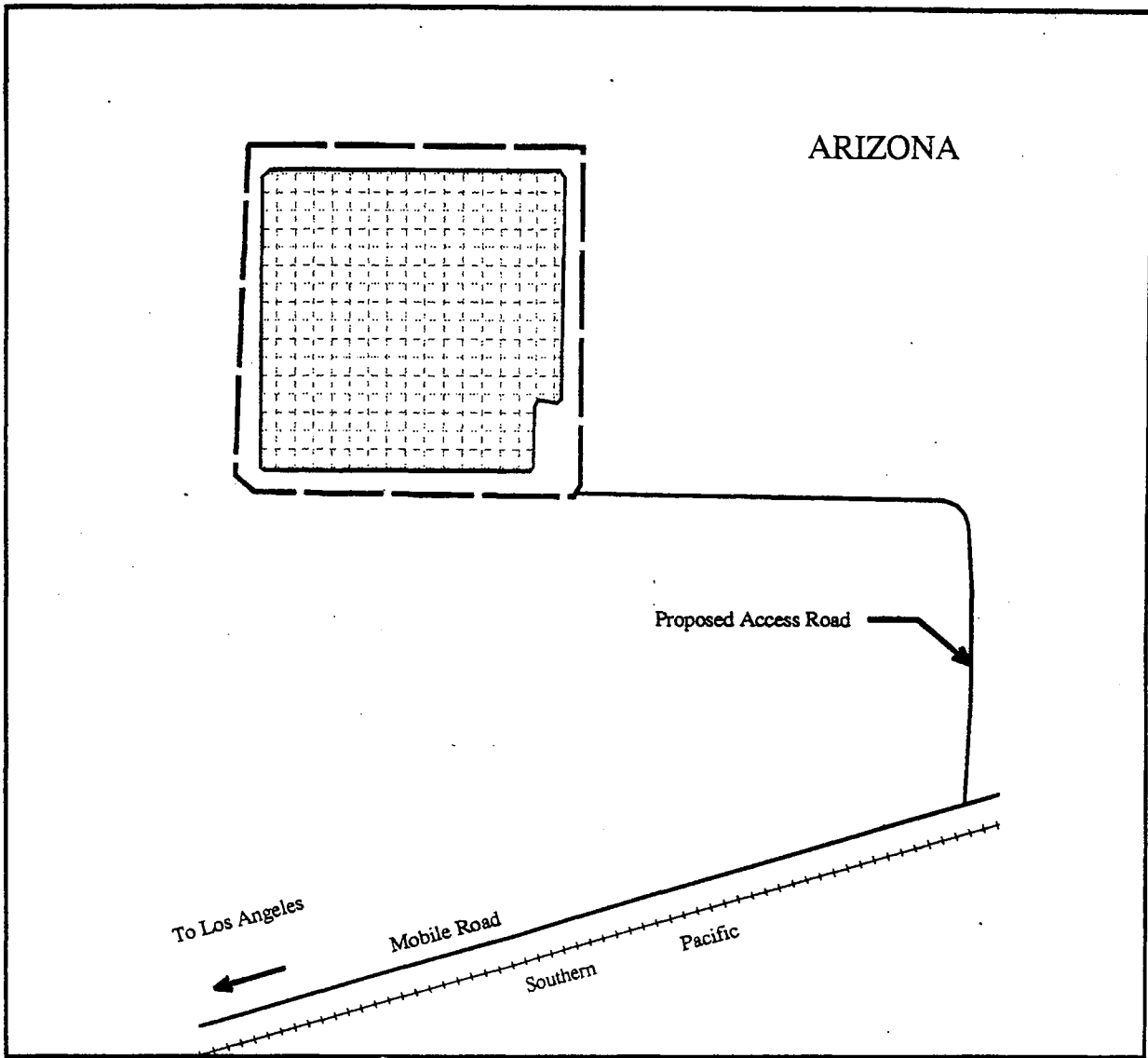
2. **FACILITY REMAINING PERMITTED CAPACITY** (as of January 1996)
Estimated Remaining Capacity: 44 million tons [68 million cubic yards]

3. **MAXIMUM PERMITTED DAILY CAPACITY**
Daily: no limits
Amount Devoted for Imported Waste: 5 million tons 12% (no limitations)

4. **FUTURE LAND USE** - open space

5. **REMARKS**
Site is fully operational. Currently receiving contaminated soil and other special waste from California and other out-of-state sources. Site is served by Union Pacific (formerly Southern Pacific). Waste Management of Arizona may use this landfill on an interim basis to receive waste-by-rail until the proposed Bolo Station Landfill in San Bernardino County becomes operational. An import fee of \$.50 per ton will go to Maricopa county to support parks, recreation and environmental activities.

Note: Calculated or assumed quantities are shown in brackets.



LEGEND



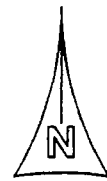
Existing Disposal Area



Limits of Disposal Areas



Property Boundary



GIS SERVICES

SCALE 1" = 2500'

Data contained in this map was produced in whole or part from the Los Angeles County Department of Public Works' digital database.

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BUTTERFIELD LANDFILL
Los Angeles County Countywide Siting Element

Figure 9-4

Table 9-5
COLUMBIA RIDGE LANDFILL (existing)
FACT SHEET

1. **FACILITY INFORMATION**
Owner: Waste Management of Oregon, Inc. **Operator:** Waste Management of Oregon, Inc.
Location: 18177 Cedar Springs Road, near Arlington, Oregon

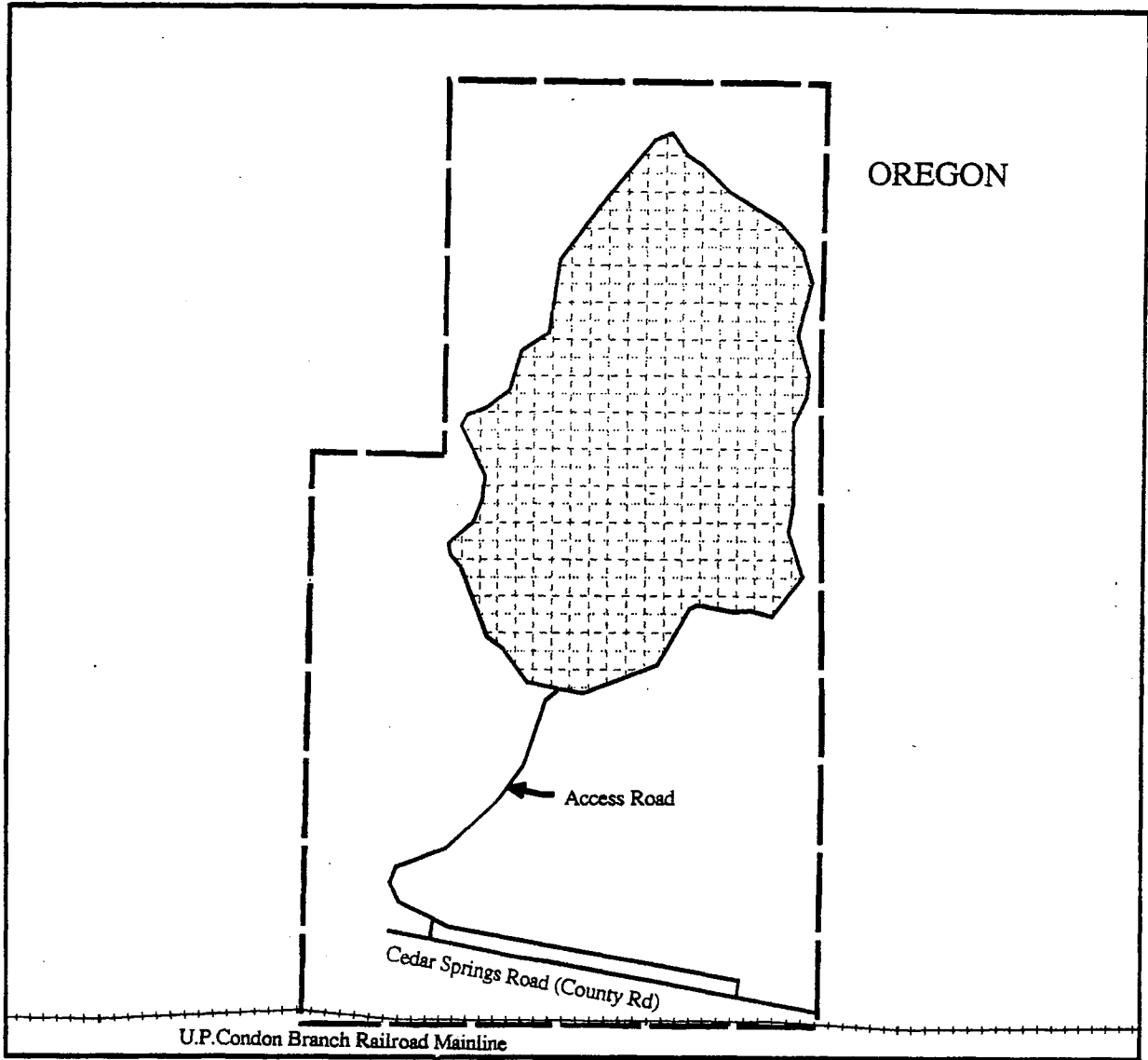
2. **FACILITY REMAINING PERMITTED CAPACITY** (as of January 1996)
Estimated Remaining Capacity: 60 million tons [100 million cubic yards]
Estimated Remaining Life: 40 years

3. **MAXIMUM PERMITTED DAILY CAPACITY**
Daily: no limits




4. **FUTURE LAND USE** - unknown

5. **REMARKS/STATUS**
The landfill has been in operation since January 1990 and is served by Union Pacific. The landfill receives waste by truck and rail from jurisdictions throughout Oregon, Washington and Idaho; however, no waste has yet been imported from California.

Note: Calculated or assumed quantities are shown in brackets.



LEGEND

-  Existing Disposal Area
-  Limits of Disposal Areas
-  Property Boundary



Data contained in this map was produced in whole or part from the Los Angeles County Department of Public Works' digital database.



COLUMBIA RIDGE LANDFILL
Los Angeles County Countywide Siting Element

Figure 9-5

Source: Los Angeles County Department of Public Works, January 1997

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Table 9-6
COPPER MOUNTAIN LANDFILL (existing)
FACT SHEET

1. **FACILITY INFORMATION**

Owner: Sanifill (USA Waste) **Operator:** Southern Sanitation, Inc. (USA Waste)
Location: Yuma County, Arizona

2. **FACILITY REMAINING PERMITTED CAPACITY** (as of January 1996)

Estimated Remaining Capacity: 20.7 million tons [33.2 million cubic yards]
Estimated Remaining Life: 50 years

3. **MAXIMUM PERMITTED DAILY CAPACITY**

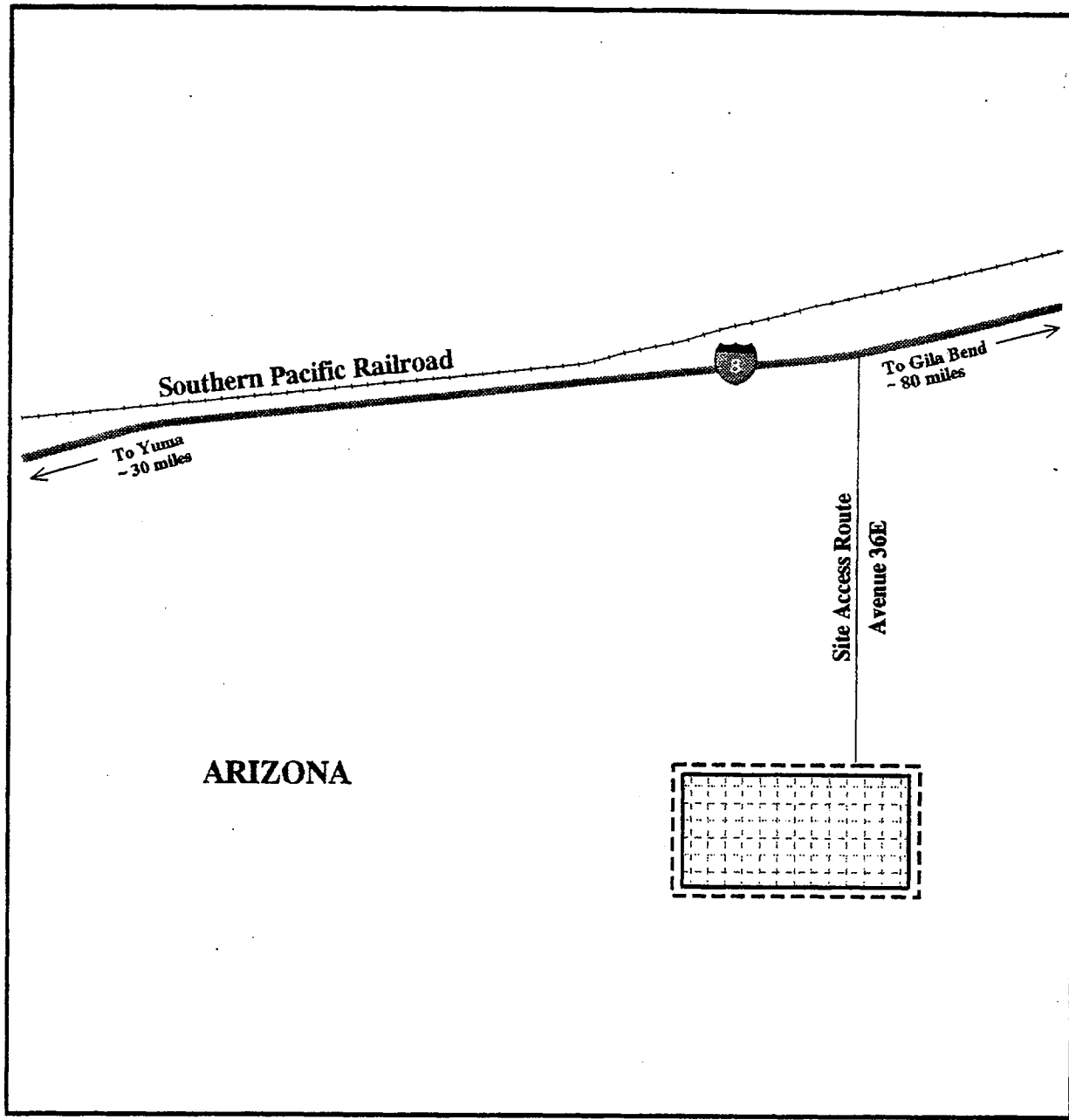
Daily: Unlimited

4. **FUTURE LAND USE** - unknown

5. **REMARKS/STATUS**

The site occupies 320 permitted acres with over 85 million gate cubic yards of airspace. It was strategically permitted in Arizona due to the climate where the average annual rainfall is 3.6 inches and evaporation rate is 106 inches.

Note: Calculated or assumed quantities are shown in brackets.



LEGEND

 Existing Landfill

 Property Boundary


 Limits of Disposal Area



SCALE 1" = 4000'

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COPPER MOUNTAIN LANDFILL

Los Angeles County Countywide Siting Element

Figure 9-6

Source: Los Angeles County Department of Public Works, January 1997

Table 9-7
ECDC ENVIRONMENTAL SANITARY LANDFILL (existing)
FACT SHEET

1. **FACILITY INFORMATION**

Owner: Laidlaw Environmental Corporation **Operator:** ECDC Environmental, L. C.

Location: near East Carbon City, Utah (approximately 700 miles from Los Angeles)

2. **FACILITY REMAINING PERMITTED CAPACITY** (as of January 1996)

Estimated Remaining Capacity: 260 million tons [433 million cubic yards]

3. **MAXIMUM PERMITTED DAILY CAPACITY**

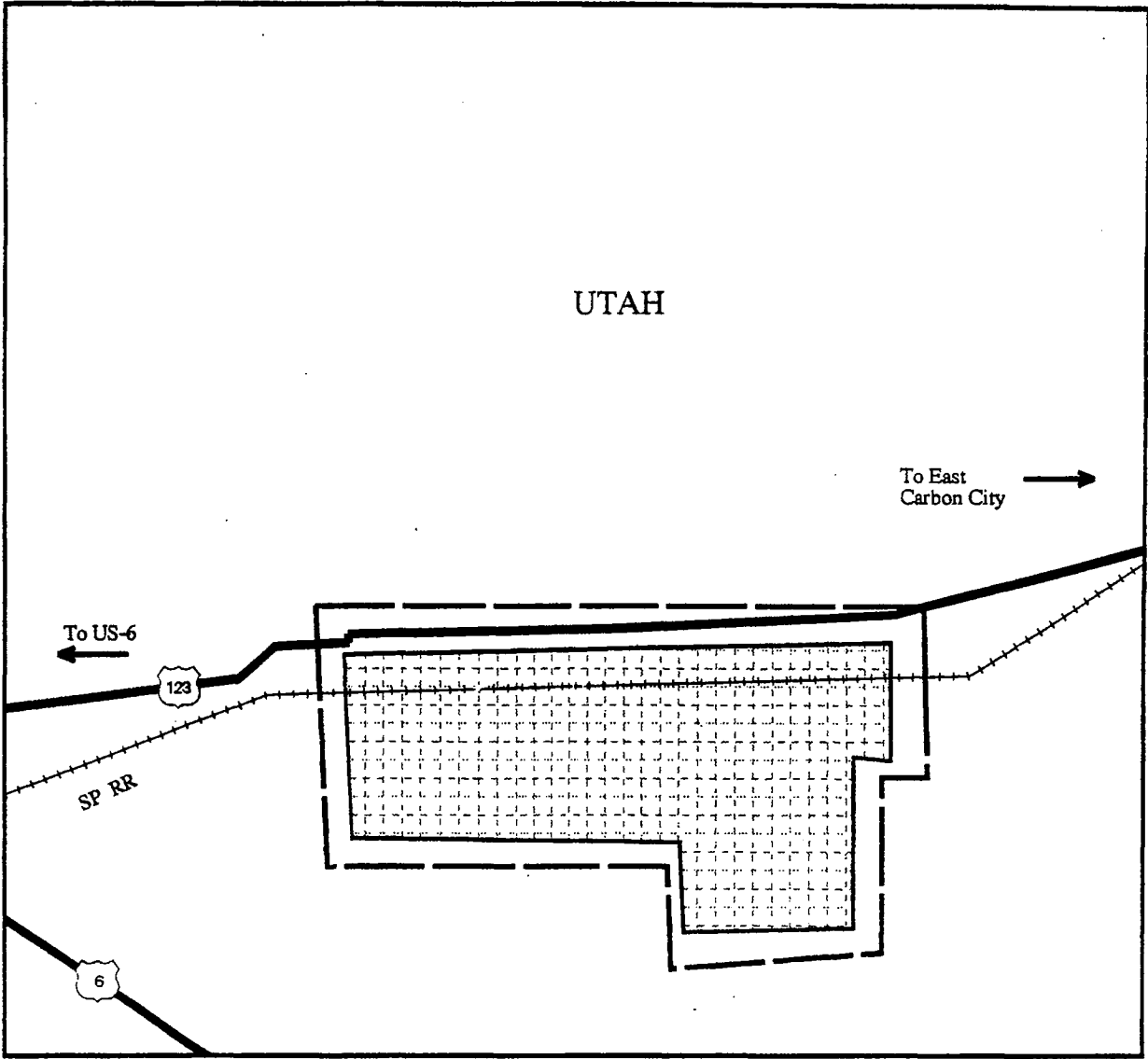
Daily: no limit, however, 30,000 tons is the operational capacity

4. **FUTURE LAND USE** - open space




5. **REMARKS**

The facility is fully permitted and operational to receive municipal solid waste and non-hazardous (per RCRA guidelines) industrial waste. The facility received 1 million tons of industrial waste and 200,000 tons of municipal solid waste in 1995. Waste is currently received from east and west coast locations by truck and rail. Permit renewal is every 5 years. A 40 year host community agreement is in place which assesses a fee on a per ton basis for all incoming waste. This money is used for the City's general fund and for local scholarships. The proponent is soliciting business in California, as well as throughout the United States.

Note: Calculated or assumed quantities are shown in brackets.



LEGEND

-  Existing Disposal Area
-  Limits of Disposal Areas
-  Property Boundary



Data contained in this map was produced in whole or part from the Los Angeles County Department of Public Works' digital database.



EAST CARBON CANYON LANDFILL

Los Angeles County Countywide Siting Element

Figure 9-7

Table 9-8
EL SOBRANTE LANDFILL (existing)
FACT SHEET

1. **FACILITY INFORMATION**

Owner: Western Waste Industries

Operator: Western Waste Industries

Location: Unincorporated Riverside County (approximately seven miles south of the City of Corona)

2. **FACILITY REMAINING PERMITTED CAPACITY** (as of January 1996)

Estimated Remaining Capacity: 4.67 million tons [7.78 million cubic yards]
Will reach capacity in 2005

Estimated Remaining Capacity with Expansion: beyond year 2035

3. **MAXIMUM PERMITTED DAILY CAPACITY**

Daily: 4,000 tons (6-day week) (waste originating in Riverside County has priority over out-of-Riverside County waste)

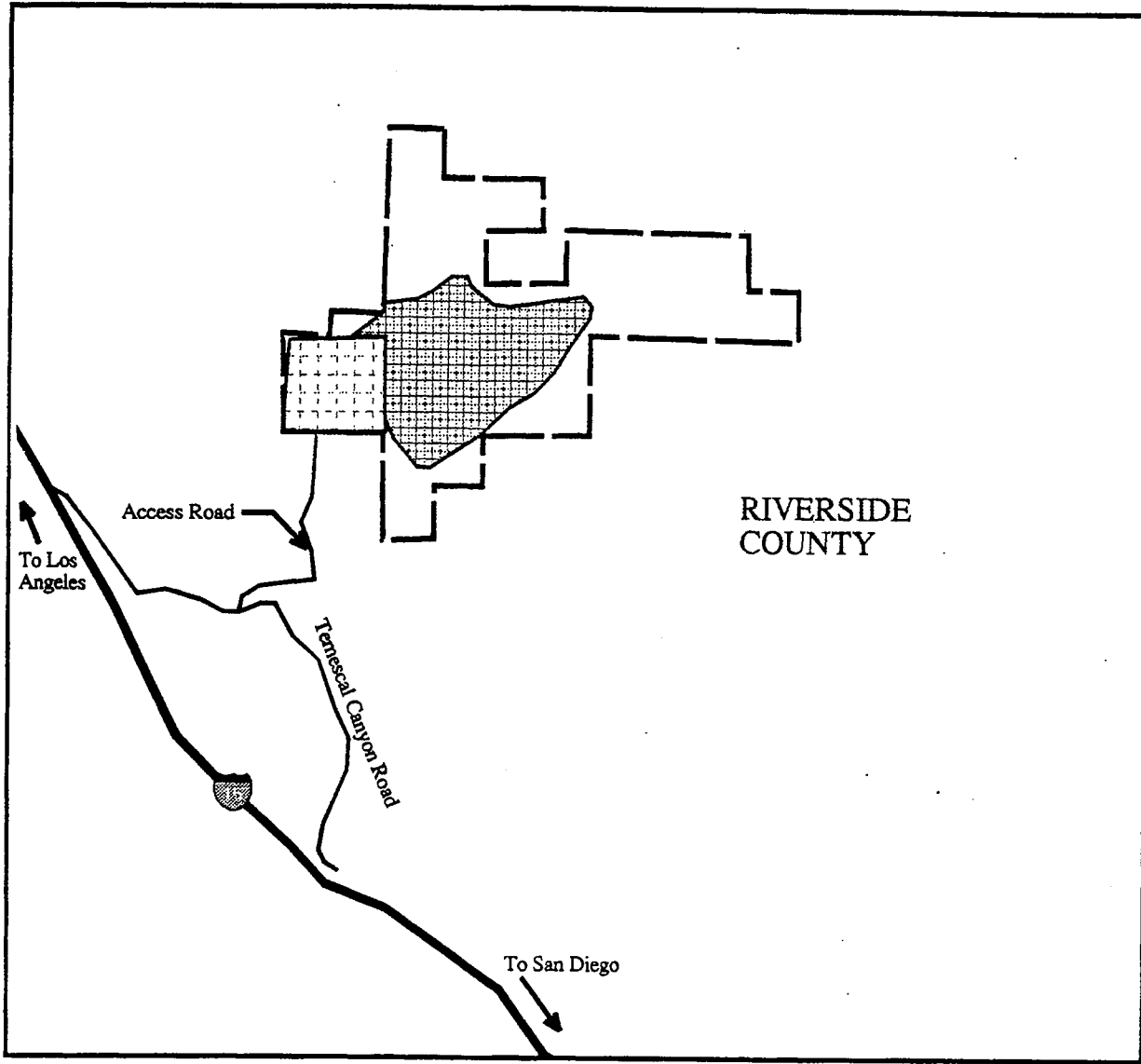
4. **FUTURE LAND USE** - open space

5. **REMARKS**

The existing El Sobrante Landfill is owned and operated by Western Waste Industries. This is a fully permitted and operational landfill on a 160 acre site. It receives waste-by-truck only and is not being considered for utilization by rail. The project proponent is currently proposing a 108 million ton expansion with a disposal rate of 10,000 tons per day. Of the 108 million ton proposed expansion, 40 percent of the daily and total waste capacity would be reserved for Riverside County with the remaining 60 percent reserved for receiving waste from areas outside Riverside County. In the event that the expansion does not reach 100 million tons as proposed, a minimum of 25 million tons of capacity would be reserved exclusively for waste generated in the county and its cities.

After first supporting the expansion, the Riverside County Board of Supervisors voted on July 30 to delay final action regarding the approval of the EIR and business agreement for three months pending Compton Council Member's extortion trial in reference to Western Waste Industries, and for further financial analysis. The Board reconsidered this matter on October 29, 1996 and delayed any action by an additional six months.

Note: Calculated or assumed quantities are shown in brackets.



RIVERSIDE COUNTY

LEGEND

-  Potential Expansion
-  Existing Disposal Area
-  Limits of Disposal Areas
-  Property Boundary



Data contained in this map was produced in whole or in part from the Los Angeles County Department of Public Works' digital database.



EL SOBRANTE LANDFILL
Los Angeles County Countywide Siting Element

Figure 9-8

Source: Los Angeles County Department of Public Works, January 1997

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Table 9-9
FRANCONIA LANDFILL (existing)
FACT SHEET

1. **FACILITY INFORMATION**

Owner: Waste Management, Inc. / Franconia Technologies **Operator:** n/a
Location: Mohave County, Arizona

2. **FACILITY REMAINING PERMITTED CAPACITY** (as of January 1996)

Estimated Remaining Capacity: 10 million tons [17 million cubic yards]

3. **MAXIMUM PERMITTED DAILY CAPACITY**

Daily: No daily limits

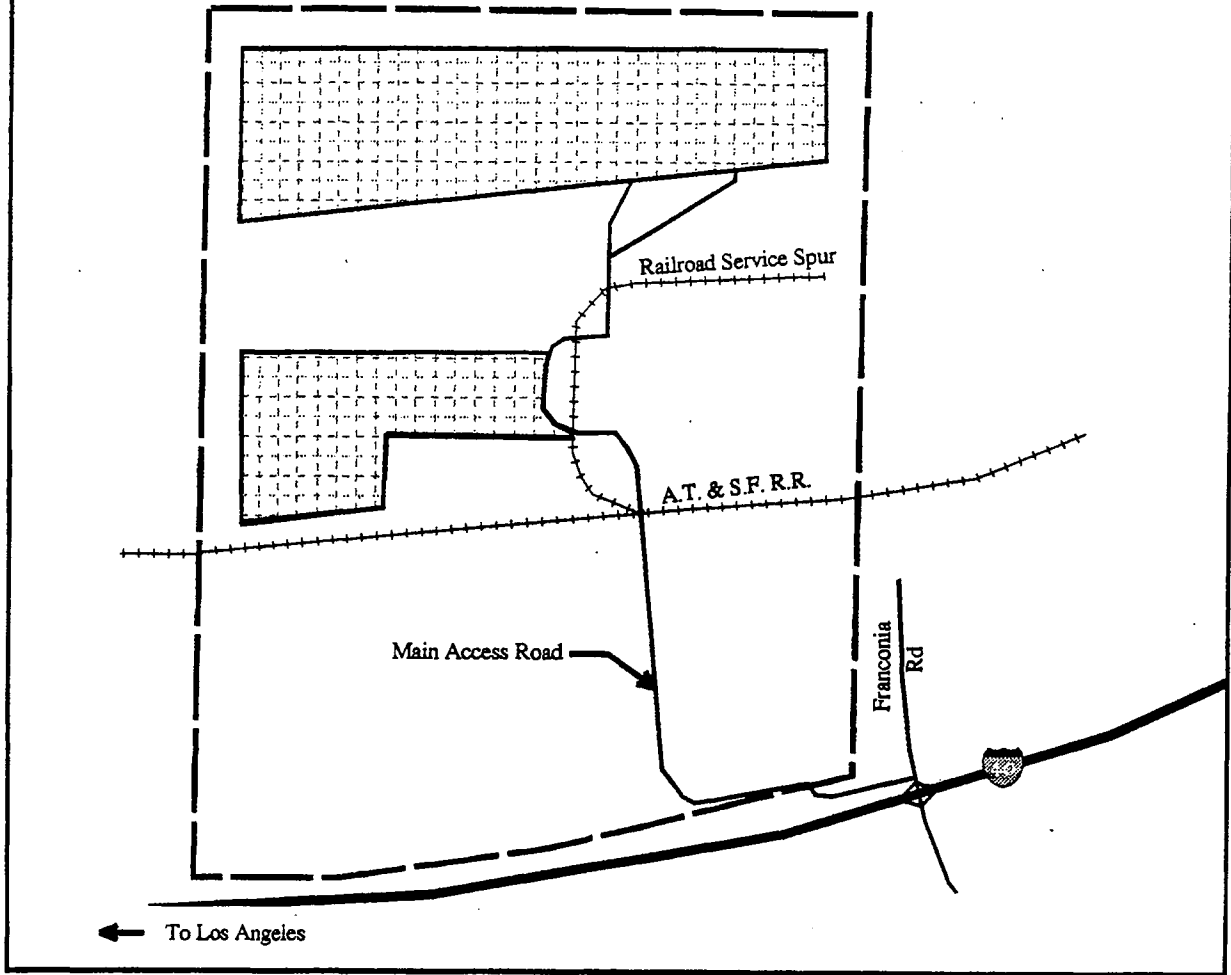
4. **FUTURE LAND USE** - unknown

5. **REMARKS**




This is a fully permitted, but not yet constructed landfill. There is no specific schedule for construction and operation, which will proceed when business conditions dictate. Site is being served by Burlington Northern Santa Fe Railway. This landfill may receive waste-by-rail on an interim basis until the Bolo Station Landfill becomes operational. A host community agreement is in place with Mohave County, Arizona which allows for the importation of waste from out-of-county or out-of-state. An import fee of \$0.50 per ton will go to the county to support parks, recreation and environmental activities.

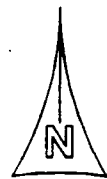
Note: Calculated or assumed quantities are shown in brackets.

ARIZONA



LEGEND

-  Existing Disposal Area
-  Limits of Disposal Areas
-  Property Boundary



GIS SERVICES
SCALE 1" = 1500'

Data contained in this map was produced in whole or in part from the Los Angeles County Department of Public Works' digital database.



FRANCONIA LANDFILL

Los Angeles County Countywide Siting Element

Figure 9-9

Table 9-10
LA PAZ LANDFILL (existing)
FACT SHEET

1. **FACILITY INFORMATION**

Owner: La Paz County

Operator: Browning-Ferris Industries, Inc.

Location: La Paz County, Arizona

2. **FACILITY REMAINING PERMITTED CAPACITY** (as of January 1996)

Estimated Remaining Capacity: 20 million tons [33.3 million cubic yards]

3. **MAXIMUM PERMITTED DAILY CAPACITY**

Daily: no limits

4. **FUTURE LAND USE** - unknown

5. **REMARKS**

This facility is located approximately three miles from a railroad siding. Under an Agreement between La Paz County and BFI, this site would be redesigned to directly accept waste-by-rail. Technical studies and plans are being prepared for expanding the acreage of the Landfill from 97 acres to a total of 640 acres, and increasing the facility's disposal capacity by 80 million tons [133.3 million cubic yards].

Note: Calculated or assumed quantities are shown in brackets.

LA PAZ LANDFILL

Map is not available

Table 9-11
LOCKWOOD LANDFILL (existing)
FACT SHEET

1. **FACILITY INFORMATION**

Owner: Carmella/Ballardini **Operator:** Refuse Inc.
Location: near Reno, Nevada

2. **FACILITY REMAINING PERMITTED CAPACITY** (as of January 1996)

Estimated Remaining Capacity: 200 million tons [333 million cubic yards]
Estimated Remaining Life: 200 years

3. **MAXIMUM PERMITTED DAILY CAPACITY**

Daily: 3,500 tpd start-up
 unlimited max.

4. **FUTURE LAND USE** - unknown

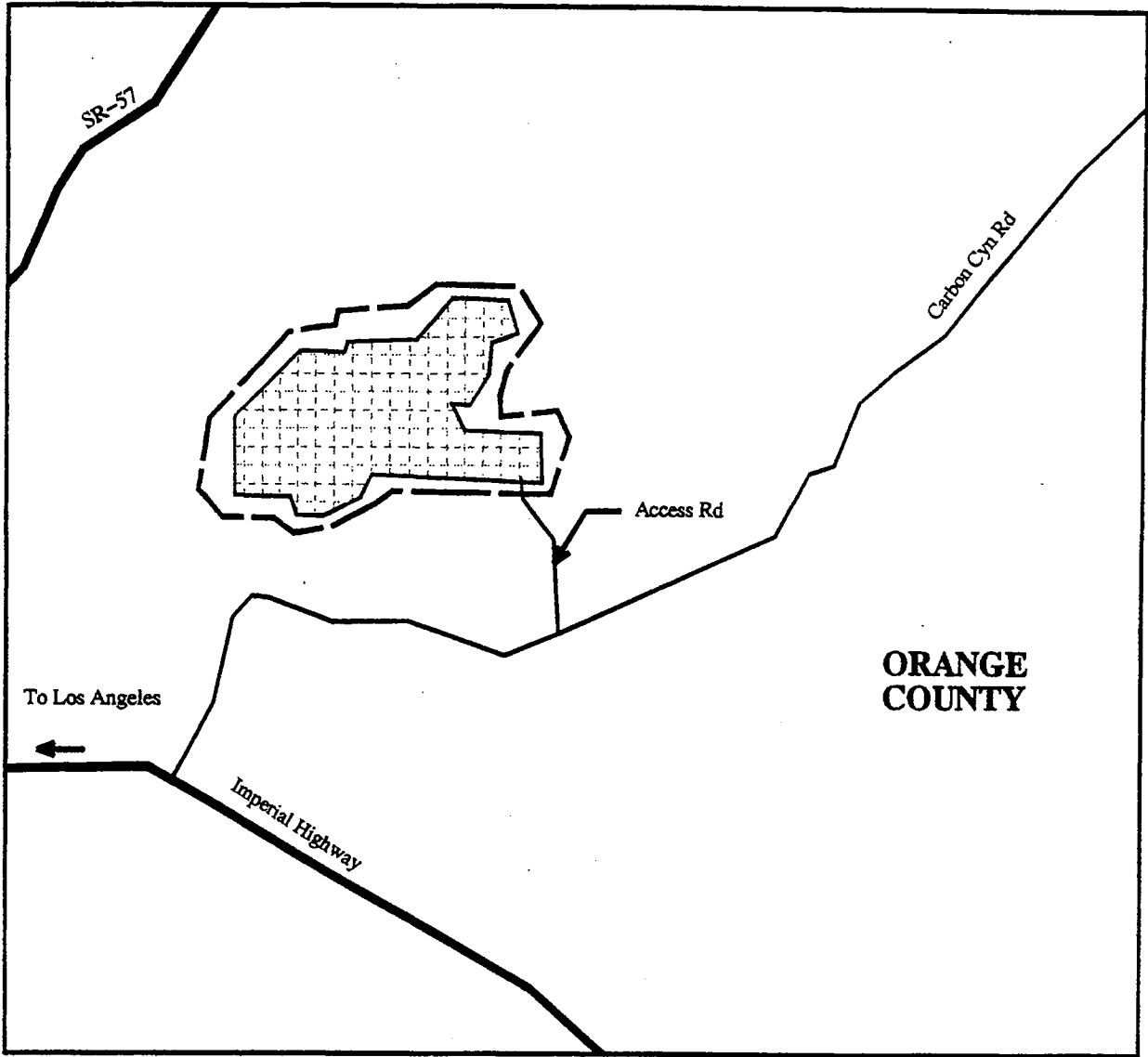
5. **REMARKS/STATUS**

The above figures reflect the tonnage and capacity of the current disposal site (555 acres). The remaining land will be permitted as needed.

Note: Calculated or assumed quantities are shown in brackets.

LOCKWOOD LANDFILL

Map is not available



LEGEND



Existing Disposal Area



Limits of Disposal Areas



Property Boundary



SCALE 1" = 4800'

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OLINDA AND OLINDA ALPHA LANDFILL

Los Angeles County Countywide Siting Element

Figure 9-12

Table 9-13
PRIMA DESHECHA CAÑADA LANDFILL (existing)
FACT SHEET

1. **FACILITY INFORMATION**

Owner: Orange County **Operator:** Orange County Integrated Waste Management Dept.
Location: partially located in the City of San Juan Capistrano, City of San Clemente,
and the unincorporated area of Orange County

2. **FACILITY REMAINING PERMITTED CAPACITY** (as of January 1, 1996)

Estimated Remaining Capacity: 46.3 million tons [77.2] million cubic yards
Estimated Remaining Life: approximately 42 years (based upon Orange County disposal projections)

3. **MAXIMUM PERMITTED DAILY CAPACITY**

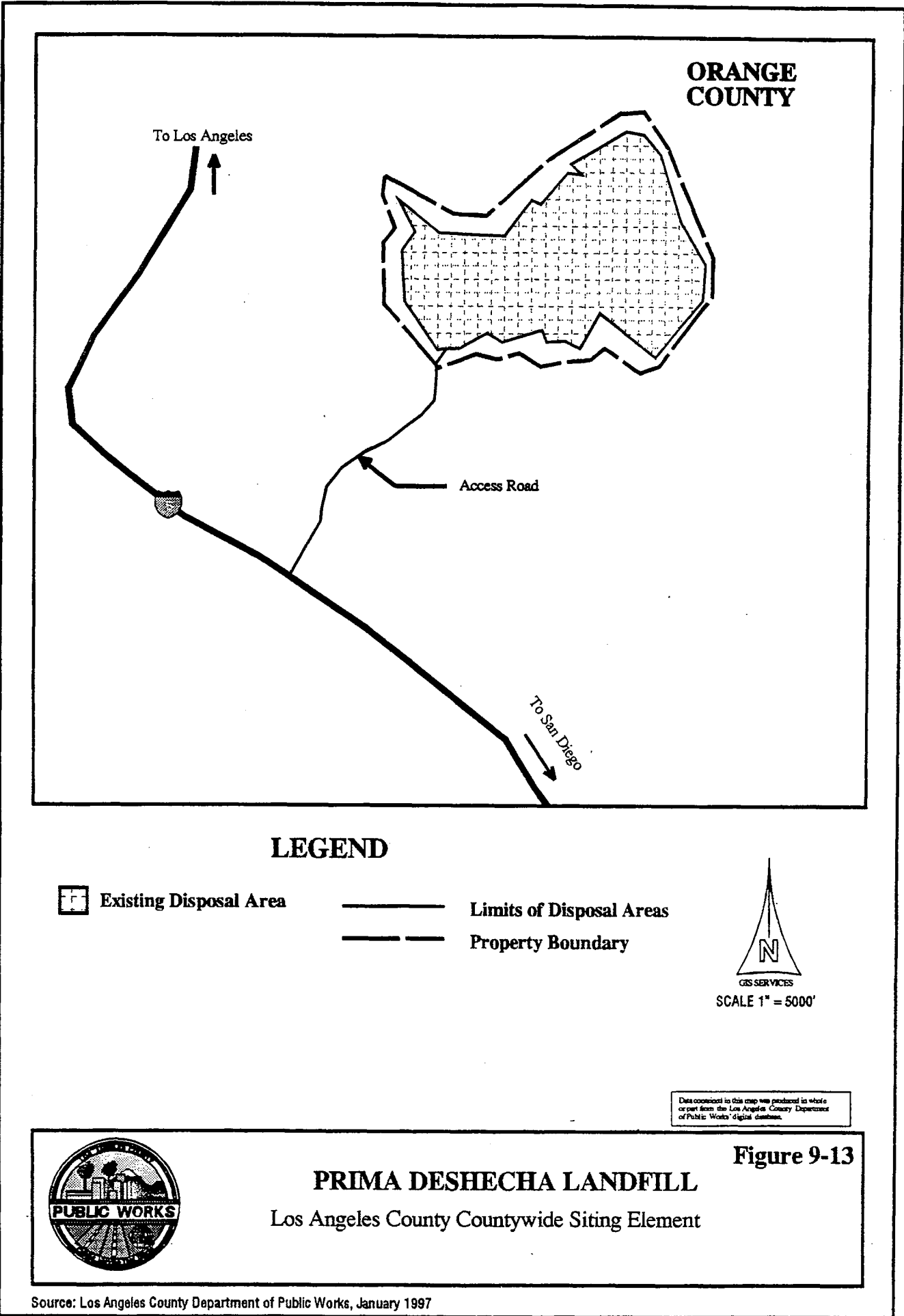
Daily: 4,000 tons

4. **FUTURE LAND USE** - unknown

5. **REMARKS**

As of January 1997, this facility was not receiving any solid waste originating outside of Orange County.

Note: Calculated or assumed quantities are shown in brackets.



ORANGE COUNTY

To Los Angeles

Access Road

To San Diego

LEGEND



Existing Disposal Area



Limits of Disposal Areas



Property Boundary



GIS SERVICES

SCALE 1" = 5000'

Data contained in this map was produced in whole or part from the Los Angeles County Department of Public Works' digital database.



PRIMA DESHECHA LANDFILL
Los Angeles County Countywide Siting Element

Figure 9-13

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Table 9-14
ROOSEVELT LANDFILL (existing)
FACT SHEET

1. **FACILITY INFORMATION**

Owner: Rabanco Regional Disposal Co. **Operator:** Rabanco Regional Disposal Co.
Location: Roosevelt, Klickitat County, Washington

2. **FACILITY REMAINING PERMITTED CAPACITY** (as of June 30, 1995)

Estimated Remaining Capacity: 120 million tons [200 million cubic yards]
Estimated Remaining Life: approximately 40 years

3. **MAXIMUM PERMITTED DAILY CAPACITY**

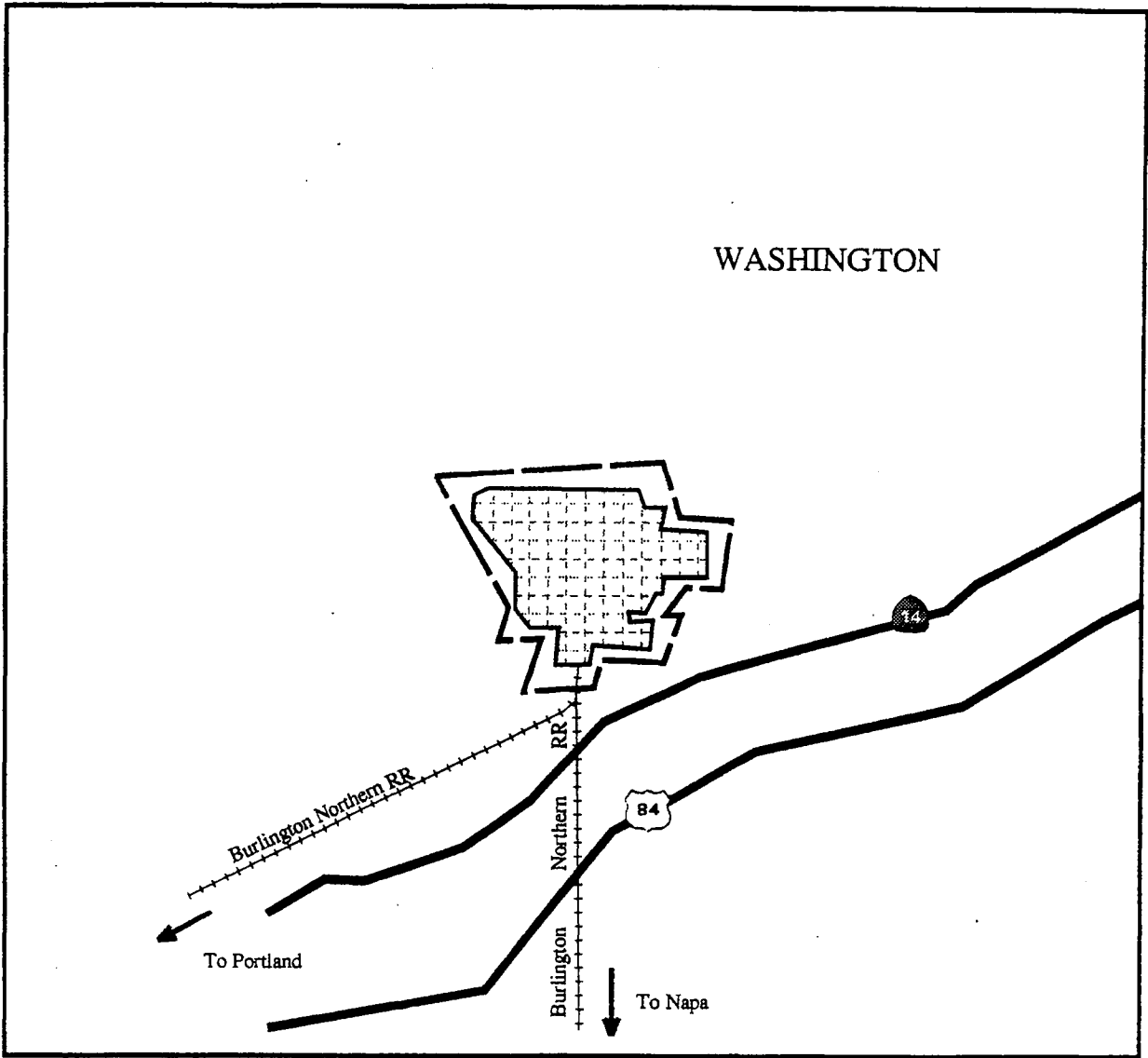
Daily: 4,000 tpd (at start-up)
9,000 tpd (current disposal rate)
3 million tons per year maximum (no daily limits)

4. **FUTURE LAND USE** - unknown

5. **REMARKS/STATUS**

This facility is fully permitted and operational. Currently accepting contaminated soils. The facility receives solid waste for disposal from Napa Valley and Vallejo, California; Seattle and Spokane, Washington; western Idaho; Ketchikan, Alaska; and British Columbia, Canada.

Note: Calculated or assumed quantities are shown in brackets.



LEGEND



Existing Disposal Area



Limits of Disposal Areas



Property Boundary



GIS SERVICES
NO SCALE

Data contained in this map was produced in whole or part from the Los Angeles County Department of Public Works' digital database.



ROOSEVELT REGIONAL LANDFILL

Los Angeles County Countywide Siting Element

Figure 9-14

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SIMI VALLEY LANDFILL

Map is not available

Table 9-16
TOLAND ROAD LANDFILL (existing)
FACT SHEET

1. **FACILITY INFORMATION**

Owner: Ventura Regional Sanitation District **Operator:** Ventura Regional Sanitation District

Location: unincorporated Ventura County (between the Cities of Fillmore and Santa Paula)

2. **FACILITY REMAINING PERMITTED CAPACITY** (as of January 1, 1996)

Estimated Remaining Capacity: 15 million tons 30 million cubic yards

Estimated Remaining Life: 31 years

3. **MAXIMUM PERMITTED DAILY CAPACITY**

Daily: 1500 tons

4. **FUTURE LAND USE** - unknown

5. **REMARKS**

Out-of-County waste is not accepted at this facility. Landfill expanded August 25, 1996.

TOLAND ROAD LANDFILL

Map is not available

Table 9-17
**BOLO STATION LANDFILL (proposed)
FACT SHEET**

1. **PROJECT NAME**

Bolo Station Landfill

2. **PROJECT PROPONENTS**

The RailCycle project is proposed by a limited partnership between Waste Management, Inc. and Burlington Northern Santa Fe Railway Company.

3. **PROJECT LOCATION**

San Bernardino County, CA (near the town of Amboy)

4. **TOTAL CAPACITY**

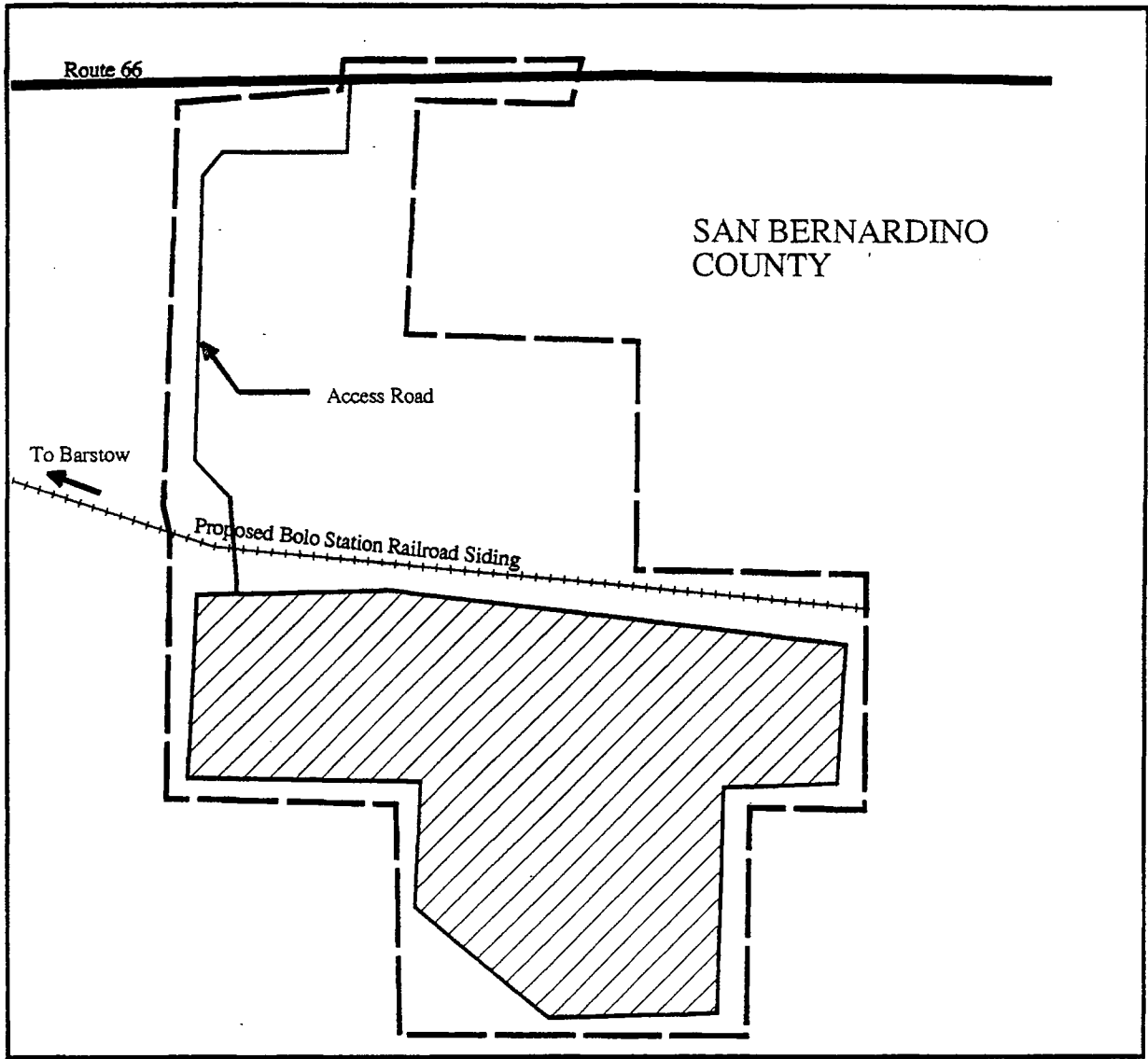
430 million tons

5. **DAILY CAPACITY**

21,000 TPD (the site will open with an initial operating capacity of 3,000 tpd)

6. **CURRENT STATUS/OVERVIEW**

This landfill project is one component of the waste handling/transporting system planned by the project proponents (RailCycle, L.P.). In November 1995, the San Bernardino County Board of Supervisors certified the EIR and approved the CUP for the Bolo Station Landfill, with a provision that the CUP and General Plan Amendments will not become operative until implementation of a Business Tax that must be approved by a vote of the electorate prior to the year 2005. The first attempt to pass the tax was unsuccessful in March 1996, and the project proponent expects to attempt another election in 1997 or 1998. A lawsuit challenging the adequacy of the Landfill's EIR and seeking \$75 million in damages against RailCycle and San Bernadino County has been filed by a corporation with agricultural holdings several miles from the Landfill site. A trial date for the lawsuit has not been set. A preliminary hearing was held on January 10, 1997, during which the lawsuit was split into two separate trials, one to be handled at the local level and one at the Federal level.



LEGEND



Potential New



Limits of Disposal Areas



Property Boundary



GIS SERVICES

SCALE 1" = 4000'

Data contained in this map was produced in whole or part from the Los Angeles County Department of Public Works' digital database.

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Figure 9-17

BOLO STATION LANDFILL
Los Angeles County Countywide Siting Element

Table 9-18
**CAMPO LANDFILL (proposed)
FACT SHEET**

1. **PROJECT NAME**

Campo Landfill

2. **PROJECT PROPONENTS**

Muht-Hei Inc., a tribally chartered corporation owned by the Campo Band of Mission Indians

3. **PROJECT LOCATION**

San Diego County, CA (Indian Reservation, 70 miles southeast of San Diego)

4. **TOTAL CAPACITY**

28 million tons

5. **DAILY CAPACITY**

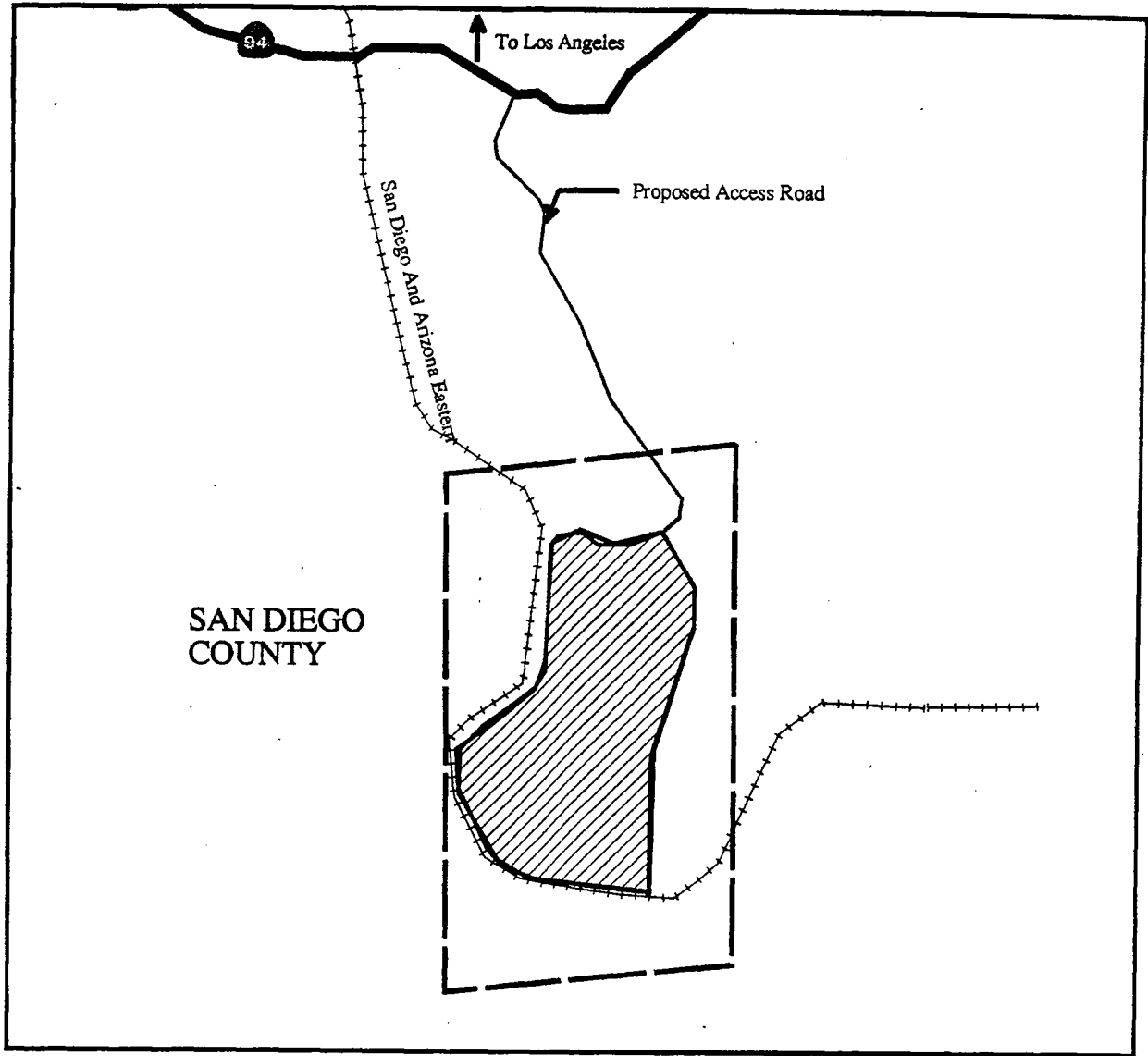
3,000 tons

6. **CURRENT STATUS/OVERVIEW**

The Campo Environmental Protection Agency (CEPA) issued the Authority to Construct Permit in 1994, and has approved approximately half the technical plans required for the project, with some plans still under review. Approval of the remaining plans and the Permit to Operate would have to be granted by the CEPA before the landfill could become operational. Additionally, in accordance with a Cooperative Agreement between the Campo Band and the California Environmental Protection Agency (Cal-EPA), the project will need to be reviewed by the State Water Resources Control Board and the California Integrated Waste Management Board prior to becoming operational.

The U.S. District Court in Washington, D.C., recently issued a ruling with regard to the lawsuit filed by Backcountry Against Dumps (BAD) against the U.S. Environmental Protection Agency (EPA). This suit challenged the EPA's authority to grant approval of the creation of the Campo Environmental Protection Agency (CEPA), and contended that the EPA did not have the authority to grant program approval to the Campo solid waste regulatory program. In its ruling, the Court did not agree with BAD that the Tribe had a conflict of interest, or that the State should regulate the Reservation. In effect, the only impact the Court ruling has on the project is that the Tribe must get a site specific acceptance for being located in a seismic impact zone. This is not seen as an issue by the CEPA regulators since this was already a part of the Campo regulations and permit requirements.

The proposed operator, Mid American Waste Systems, has withdrawn from the project. The tribal corporation is negotiating with potential replacements and expects a decision by March 1997.



LEGEND



Potential New



Limits of Disposal Areas



Property Boundary



GIS SERVICES

SCALE 1" = 2500'

Data contained in this map was produced in whole or part from the Los Angeles County Department of Public Works' digital database.



CAMPO LANDFILL

Los Angeles County Countywide Siting Element

Figure 9-18

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Table 9-19
EAGLE MOUNTAIN LANDFILL (proposed)
FACT SHEET

1. **PROJECT NAME**

Eagle Mountain Landfill

2. **PROJECT PROPONENTS**

Mine Reclamation Corp.

3. **PROJECT LOCATION**

Riverside County, CA (approximately 60 miles northeast of Indio)

4. **TOTAL CAPACITY**

700 million tons

5. **DAILY CAPACITY**

20,000 tons (proponent estimates an initial operating capacity of 3,500 tons.)

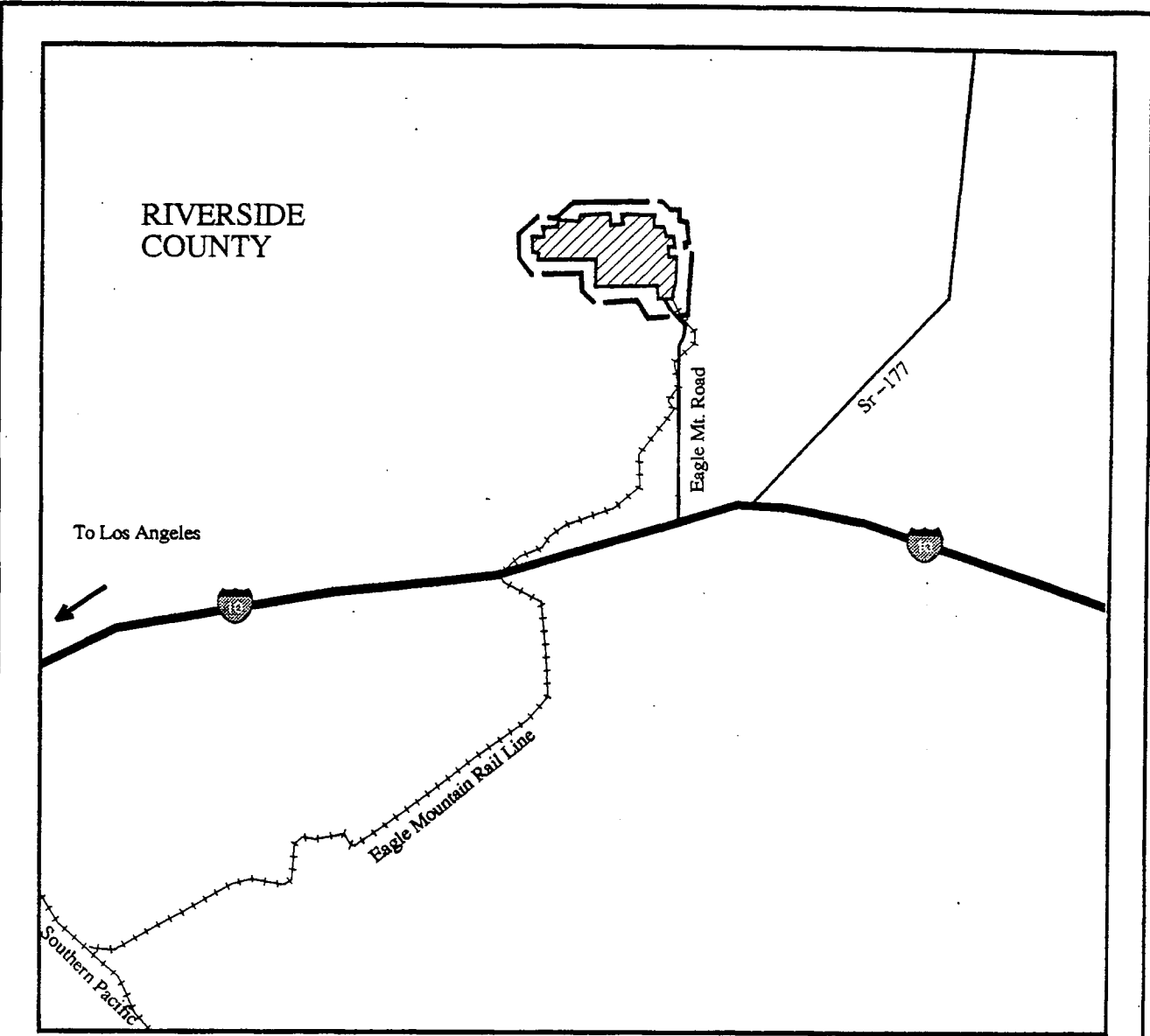
6. **CURRENT STATUS/OVERVIEW**

The Riverside County Board of Supervisors had certified the final EIR for the project. However, due to litigation claiming deficiencies in the final EIR, a San Diego County Superior Court ruled in September 1994 that a new EIR was required, as well as all new entitlements, including a Conditional Use Permit which was previously granted by the Riverside County Board of Supervisors. Proponents have submitted a new CUP application and a new draft EIR/EIS for the project was released in July of 1996 for public review and comment. The comment period was closed on September 17, 1996. The U.S. Bureau of Land Management (BLM) conducted four public hearings to review testimony on the documents in August 1996.

The final EIR/EIS was released for public comment on January 15, 1997. Public hearings on the project were conducted on January 30 and 31, and February 5, 1997. Approval of the land use permit by the Board of Supervisors is required prior to reissuance of the environmental and operating permits.

The National Park Service (NPS) and Mine Reclamation Corporation entered into an agreement in December 1996 to assure the NPS that the proposed Eagle Mountain Landfill project will be constructed, operated and managed in such a manner as to protect Park resources. The agreement addresses unknown or unpredictable impacts on the Park's resources and provides additional funding to monitor for potential long-term impacts on the Joshua Tree National Park.

Mine Reclamation Corporation has guaranteed unlimited disposal capacity to Riverside County and its cities. The facility is expected to have a life expectancy of 100 years.



LEGEND

 Potential New

 Limits of Disposal Areas

 Property Boundary



GIS SERVICES
SCALE 1" = 35000'

Data contained in this map was produced in whole or part from the Los Angeles County Department of Public Works' digital database.

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EAGLE MOUNTAIN LANDFILL
Los Angeles County Countywide Siting Element

Figure 9-19

Source: Los Angeles County Department of Public Works, January 1997

Table 9-20
MESQUITE REGIONAL LANDFILL (proposed)
FACT SHEET

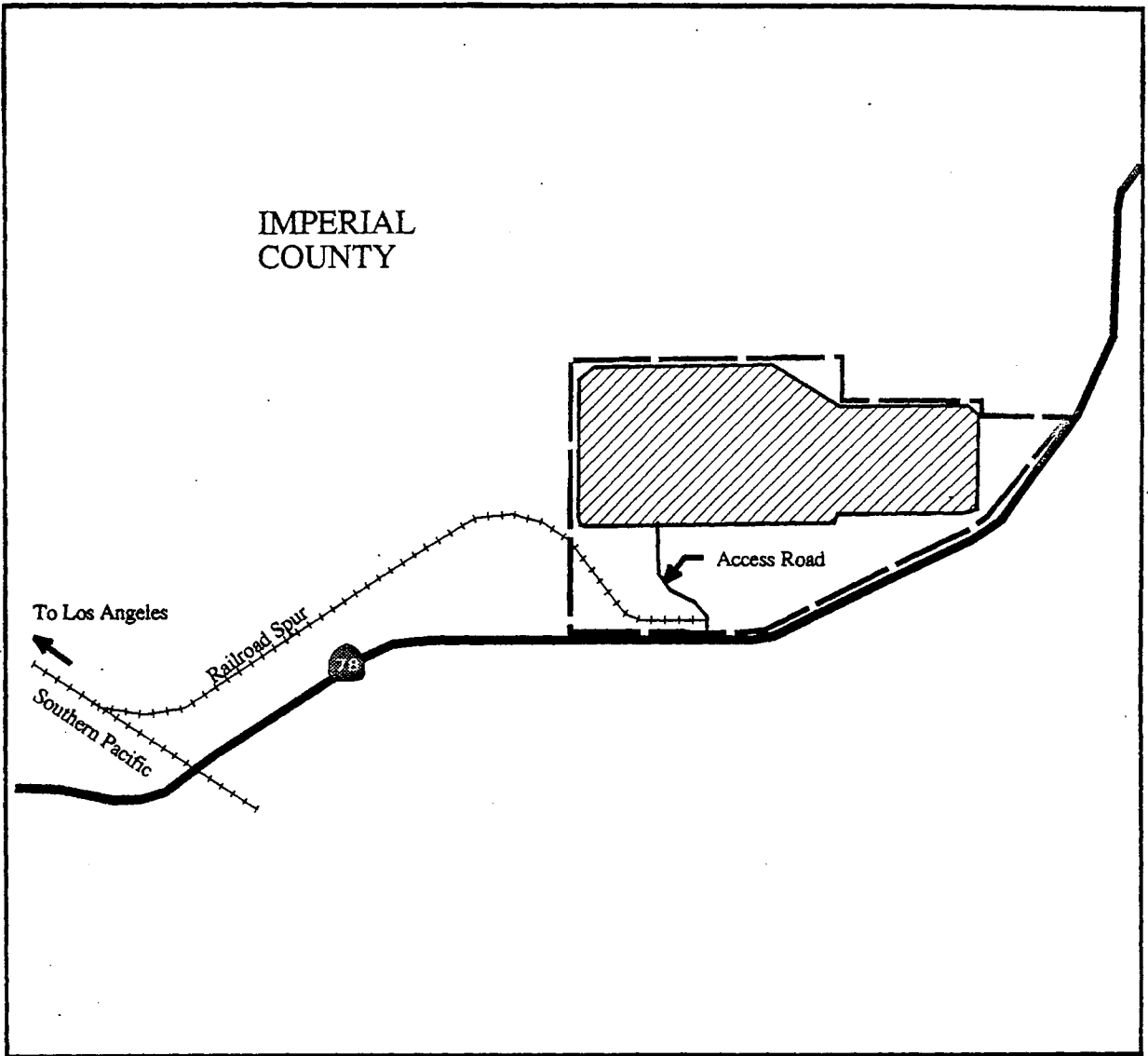
1. **PROJECT NAME**
Mesquite Regional Landfill
2. **PROJECT PROPONENTS**
Arid Operations Inc., proposed operator, and Western Waste Industries (recently acquired by USA Waste Services, Inc.), SP Environmental Systems, Inc., and Gold Fields Mining Corporation, owners.
3. **PROJECT LOCATION**
On and adjacent to the Mesquite Gold Mine and Ore Processing Facility in Imperial County, California, approximately 35 miles east of Brawley.
4. **TOTAL CAPACITY**
600 million tons
5. **DAILY CAPACITY**
20,000 tons
6. **CURRENT STATUS/OVERVIEW**

This project is proposed by a general partnership composed of Western Waste Industries, the Gold Fields Mining Company of Colorado, and Southern Pacific Environmental Systems, Inc. The Mesquite Regional Landfill is one component of the California RailFill System and has a design capacity of approximately 600 million tons with a maximum disposal rate of 20,000 tpd. The system's other components include the proposed use of the existing Western Waste transfer station in the City of Carson along with other unnamed sites as locations for rail-loading stations. Arid Operations, Inc., a subsidiary of Gold Fields Mining Company, will be the facility operator. The Final EIR and the CUP for the landfill project were approved by the Imperial County Board of Supervisors in September 1995.

In October 1995, five environmental organizations filed a lawsuit challenging the adequacy of the project's EIR. In July 1996, a California Superior Court judge ruled that some of the analysis provided in the Final EIR required further clarification. As a result an addendum to the project's Final EIR was prepared and circulated by Imperial County. The addendum was certified by the Board of Supervisors on September 24, 1996. The Superior Court is expected to issue a final ruling regarding the CEQA certification by end of February 1997.

A Record of Decision (ROD) approving a land exchange and right-of-way for the Landfill was issued in March 1996, by the U.S. BLM. That approval was challenged by the Sierra Club and local environmental groups. The BLM dismissed the protest of the ROD for lack of merit. The BLM's dismissal of the protests has been appealed to the Interior Board of Land Appeals (part of the Department of the Interior). On January 17, 1997, the Federal District Court met regarding this matter. The Court dismissed the case and ruled in the Proponent's favor on January 30, 1997. The BLM land exchange was executed on January 31, 1997.

The project's applications for the Solid Waste Facilities Permit (SWFP) and Authority to Construct (air quality) Permit are deemed complete by the Imperial County Air Control District, although the terms and conditions are still being negotiated. The SWFP is now under final consideration by the Imperial County Department of Health, LEA and the California Integrated Waste Management Board and the air quality permit is under consideration by the Imperial County Air Pollution Control District. These permits are expected to be issued in the coming months.

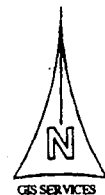


LEGEND

 Potential New

 Limits of Disposal Areas

 Property Boundary



GIS SERVICES
SCALE 1" = 6800'

Data contained in this map was produced in whole or part from the Los Angeles County Department of Public Works' digital database.



MESQUITE REGIONAL LANDFILL
Los Angeles County Countywide Siting Element

Figure 9-20

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CHAPTER 10 FINDING OF CONFORMANCE

10.1 PURPOSE

The purpose of this chapter is to present the procedure for obtaining a Finding of Conformance (FOC) with the Los Angeles County, Countywide Siting Element which will provide a mechanism for the inclusion of new solid waste landfills or transformation facilities, or expansions of existing solid waste disposal facilities into the CSE. Additionally, the process will ensure that all new solid waste disposal facilities and expansions of existing solid waste disposal facilities are consistent with the CSE and its Siting Criteria as listed in Chapter 6. Furthermore, the FOC process which is implemented under the auspices of the Task Force, will provide a forum in which the public, local jurisdictions, public organizations, businesses, and industry may voice their opinions regarding each individual project.

10.2 SPECIFIC REQUIREMENTS

Section 18756 of Title 14 of the CCR requires that the CSE must describe the process instituted Countywide to confirm that the criteria set forth in that section are included as a part of the solid waste disposal facility siting process (please refer to Chapter 6).

10.3 REGULATORY OVERVIEW

The Solid Waste Control Act of 1976, gave the former California Waste Management Board (CWMB) a direct role in siting solid waste management facilities. It required the CWMB to make a determination that each proposed facility was in conformance with a local county solid waste management plan. In Los Angeles County, the County Solid Waste Management Committee has been the liaison for the former CWMB and the California Integrated Waste Management Board (CIWMB) for making a determination of consistency and for issuance of an FOC with the Los Angeles County Solid Waste Management Plan (CoSWMP).

Section 50000 of the California Public Resources Code (PRC) requires that until a countywide integrated waste management plan has been approved by the CIWMB, no person shall establish a new or expand an existing solid waste disposal facility in the county unless the proposed facility has been identified and described in or has been found to conform with the active county solid waste management plan, which was in compliance with and adopted in accordance with the laws of the former Title 7.3 of the California Government Code (prior to repeal by Assembly Bill 939, California Integrated Waste Management Act of 1989) and has been approved by the CWMB, the county and a majority of the cities with a majority of the incorporated population. The Task Force currently issues FOCs with the active

Los Angeles County Solid Waste Management Plan, dated March 1984 and Revision A dated August 1985, for solid waste disposal facilities in accordance to the procedures found in Chapter 7 of that document.

Section 50001 of the PRC requires that after a countywide integrated waste management plan has been approved by the CIWMB, no person shall establish a new or expand an existing solid waste disposal facility in the county unless the proposed facility has been identified in an approved countywide siting element, or amendment thereof. The County of Los Angeles will ensure that the Siting Criteria contained in the CSE are applied and that a land disposal or transformation facility is in conformance with the CSE through the FOC process. Additionally, any FOC granted by the Task Force to a solid waste disposal facility will serve as an approved amendment to the CSE.

10.4 APPLICABILITY OF FINDING OF CONFORMANCE

New solid waste disposal facilities, expansions of existing solid waste disposal facilities, or existing solid waste disposal facilities that institute a "significant change" to their operation must obtain an FOC with the CSE granted by the Task Force (exemptions are listed below).

For the purpose of the CSE, "significant change" is defined as: a) any change in the solid waste disposal facility's land use permit/conditional use permit, and/or Waste Discharge Requirements Permit that requires compliance with the requirements of the California Environmental Quality Act, as amended; b) any revision in the facility's Solid Waste Facility Permit; or c) any increase in daily permitted capacity as defined in Chapter 3 of the CSE.

Certain types of solid waste disposal/transformation facilities are exempt from an FOC with the CSE. These facilities include:

- Owner-operated Unclassified (inert) landfills which accept inert waste generated by the owner and providing the facility is allowed (as determined by the appropriate Local Enforcement Agency) to operate without a Solid Waste Facility Permit;
- Drilling mud disposal sites for short-term use; or
- Farm/ranch disposal sites for one- or two-family use.

Project proponents of solid waste disposal facilities, except those exempted above, must submit proposals to the Task Force for an FOC. Table 10-1 lists the minimum components that a facility proposal must contain.

Table 10-1
Finding of Conformance Submittal Requirements

Proponents of solid waste disposal (landfill and transformation) facilities, except otherwise exempted, must submit proposals to the Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force for an FOC. The facility proposal shall contain the following minimum information:

1. Identity of project proponent, owner, and operator.
2. Description of project location.
3. Project implementation schedule (as applicable) including planned dates for construction start, construction completion, start-up, planned expansion, and closure.
4. Project design capacity or acreage as appropriate.
5. Description of waste material to be handled.
6. Identification of waste sources.
7. Projection of waste quantity to be handled at start-up and at five-year intervals in project's life.
8. Identification of waste transport corridors and destination.
9. Technology to be used for treatment facilities.
10. Planned site classification for disposal sites.
11. Planned end uses for the land for disposal sites.
12. Final environmental documentation (initial study, negative declaration, categorical exemption, or an Environmental Impact Report) including all Notices of Determinations showing the posting dates with the County Clerk/City Clerk and the State Office of Planning and Research.
13. Planned market for materials/energy recovered from resource recovery projects.
14. Description of proposed waste diversion/salvage programs to be operated at the facility.
15. Information and operations plan for meeting applicable permit/regulatory requirements.
16. Demonstration of compliance with siting criteria requirements as established in Chapter 6 of the CSE.
17. Demonstration of compliance with general plan consistency requirements as required by the California Public Resources Code, Section 50000.5 and 50001, as applicable. In addition, a copy of the appropriate land use permit shall also be provided.
18. A tarping program designed to prevent the accidental release of litter from vehicles entering and leaving the site.
19. A waste load-checking program designed to prevent disposal of hazardous and other unacceptable waste from the site.

Table 10-1 (continued)

20. A set of plans, drawn-to-scale, clearly identifying property lines, adjacent land uses, all structures such as scale house, administration buildings, locations of any above ground or underground storage tanks, surrounding streets and access roads, etc. The plans must be a minimum of 2 feet by 3 feet in dimension, clearly labeled and bearing the signature and seal of a California Registered Civil Engineer. For land disposal facilities, the plans must show initial and final grades for and delineate the extent of the fill area. For transformation facilities, the plans must show drainage and wastewater discharge lines, the incineration building and equipment, and materials recovery area (if any).

In addition, the facility owner/operator will be required to implement the following measures/programs:

1. Project proponents of new Class III landfills and owners/operators of expansions of existing Class III landfills shall be required to implement the following seismic monitoring requirements:
 - a) Install an accelerometer on site to measure seismic ground motions by a date to be established by the Task Force. A set of as-built plans signed and sealed by a California Registered Civil Engineer shall be provided to the Local Enforcement Agency and the Los Angeles County Department of Public Works, Environmental Programs Division for approval.
 - b) Following a major seismic event: 1) of magnitude 5.0 or greater in the Richter Scale, as recorded by the closest ground-motion monitoring device as maintained by the California Division of Mines and Geology, and 2) with an epicenter located within 25 miles from the Landfill (or as directed by the Task Force), thoroughly survey the landfill site for primary and secondary surface expressions of seismic activity (such as, surface ruptures, landslides, changes in spring flows, liquefaction, etc.). Submit a damage assessment report on the results of the survey to the Los Angeles County Department of Public Works, Environmental Programs Division and the Local Enforcement Agency for review. The assessment report must describe and discuss all features, including damage to the site and infrastructure caused by the seismic event, and the measures that will be taken to mitigate the impact.
2. All Class III landfill owners/operators shall be required to submit a description of the program that will be implemented at the facility to:
 - a) Minimize disposal of inert waste at their facility.
 - b) Maximize density of disposed materials.
 - c) Use green waste or other appropriate materials for use as landfill daily cover other than soil, subject to approval of the appropriate Local Enforcement Agency, the CIWMB, and other appropriate permitting agencies.
3. All solid waste disposal facility operators shall be required to submit a description of the program that will be implemented at the facility to:
 - a) Acquire and provide to the County all data necessary for cities in Los Angeles County and the County to comply with the mandates of Assembly Bill 939. Additionally, disposal facility operators will be encouraged to institute waste salvage operations in compliance with all applicable rules and regulations.
 - b) Discourage transportation of uncovered waste to the disposal facility through vehicle tarping enforcement at the gate.
 - c) Control litter on the streets, highways, and properties surrounding the disposal facility.

10.5 ADMINISTRATIVE PROCESS

The Task Force shall review and act on a proposed project which meets the requirements of the CSE. The Task Force has 30 days after the proposal is submitted in which to determine if the proposal is complete. Once a proposal has been determined to be complete, the Task force has 60 days in which to act upon the FOC. However, after the 60 days, the review period may be extended for an agreed upon period by mutual consent of both parties. The proposal will not be considered to be complete without: the certified final environmental document, the land use/conditional use permit, consistency with the local jurisdiction's General Plan, and all other materials listed in Table 10-1 of this Chapter.

In the review process, the Task Force:

1. Considers the project in relation to:
 - The goals, policies, and objectives of the CSE/CoIWMP;
 - The policies of the California Integrated Waste Management Board/ appropriate Local Enforcement Agency; and
 - The policies of the local jurisdiction's (city or the County as applicable) General Plan.
2. Evaluates the proposed site in relation to the Siting Criteria in the CSE.
3. Accepts comments from the local jurisdiction where the facility is to be located, as well as, any adjacent jurisdictions. The local jurisdictions shall be requested by the Task Force to comment on project implementation, proposed transportation routes, and planned end uses of the land (for landfills).
4. Examines the projected waste flow to the proposed project and analyses of Countywide/regionwide impacts.
5. Conducts a technical review of the project aimed specifically at the application of technology, residue disposal plans, the environmental assessment, and plans for meeting applicable permit requirements.
6. Considers other existing and planned projects in the same general area of the proposed project.
7. Determines whether or not the city or the County in which the site is located, has made a finding (of consistency) that the establishment or expansion of the site is consistent with that city or County's applicable general plan.

10.6 ACTIONS BY THE TASK FORCE

Upon review of the proposed project, the Task Force will convene a public meeting in order to make one of the following findings: (1) Issue an FOC or (2) Deny the request for an FOC.

10.6.1 Issue a Finding of Conformance

After a proposed project has met all the requirements to the satisfaction of the Task Force, an FOC will be issued by the Task Force.

10.6.2 Denial

A denial of an application for an FOC by the Task Force will include a full description of the reasons for denial. The basis of denial shall generally be a perceived conflict of the applicant's proposal with the policies, goals, and objectives of the CSE. A denial of an application does not preclude reapplication.

10.6.3 Local Enforcement Agency/California Integrated Waste Management Board

In accordance with Section 50001 of the PRC, prior to granting a Solid Waste Facility Permit, the appropriate Local Enforcement Agency (city or the County, as applicable) shall ensure that an FOC for the project has been granted by the Task Force. As such, upon granting an FOC, the Task Force shall forward a copy of the FOC to the appropriate Local Enforcement Agency and the California Integrated Waste Management Board. The Task Force shall also forward a copy of the FOC to the jurisdiction in which the facility is located.

10.6.4 Project Proponent Failure

If a project proponent with an FOC from the Task Force fails to meet the conditions of the finding, the Task Force may revoke the finding. Cause for revoking an FOC shall be documented in the notice of revocation to the local jurisdiction, appropriate Local Enforcement Agency, California Integrated Waste Management Board, and the facility proponent.