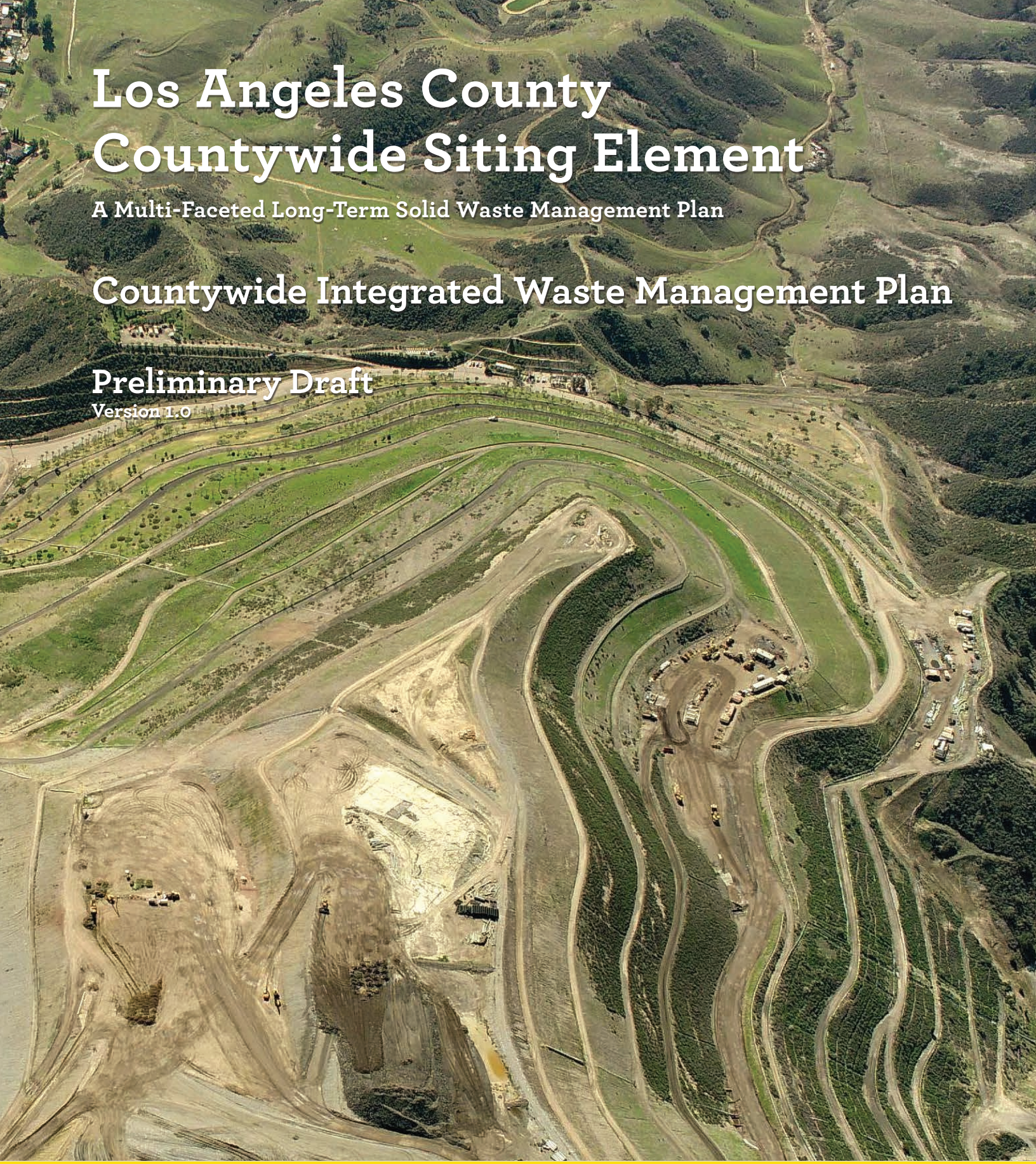

Los Angeles County Countywide Siting Element

A Multi-Faceted Long-Term Solid Waste Management Plan

Countywide Integrated Waste Management Plan

Preliminary Draft

Version 1.0

Public Works
LOS ANGELES COUNTY

June 2020
Volume I - The Element

A

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List of Acronyms

Countywide Countywide Siting Element (CSE)

LIST OF ACRONYMS

A

AADT	Average Annual Daily Traffic
AAQS	Ambient Air Quality Standards
AB	Assembly Bill
AB 939	Assembly Bill 939, California Integrated Waste Management Act of 1989
ADC	Alternative Daily Cover
ADCMs	Alternative Daily Cover Materials
AE	Advisory Entity
APCD	Air Pollution Control District
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
AQP	Air Quality Permit
ARB	Air Resources Board
ATAS	Alternative Technology Advisory Subcommittee
AUF	Air Utilization Factor
AVAPCD	Antelope Valley Air Pollution Control District (Replaced by AVAQMD)
AVAQMD	Antelope Valley Air Quality Management District

B

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
BOS	Board of Supervisors
BTU	British Thermal Unit

C

CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAI	Closed, Abandoned, and Inactive
CARB	California Air Resources Board
CalRecycle	California Department of Resources Recycling and Recovery (formerly CIWMB)
CALTRANS	California Department of Transportation
CCAA	California Clean Air Act
CCC	California Coastal Commission
CCL	Chiquita Canyon Landfill
CCR	California Code of Regulations
C&D	Construction and Demolition Waste
CDFW	California Department of Fish and Wildlife
CDHS	California Department of Health Services
CDI	Construction, Demolition, and Inert
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
CEO	Los Angeles County Chief Executive Officer
CEPA	Campo Environmental Protection Agency
CFR	Code of Federal Regulations
CGC	California Government Code
CIEC	Cement Industry Environmental Consortium

CIWMA	California Integrated Waste Management Act of 1989, Assembly Bill 939
CIWMB	California Integrated Waste Management Board (currently CalRecycle)
CO	Carbon Monoxide
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 (see also LACSD)
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)
CY	Cubic Yards

D

DHS	Los Angeles County Department of Health Services (see LACoDHS)
DPH	Los Angeles County Department of Public Health (see LACoDPH)
DRS	Disposal Reporting System

E

EA	Enforcement Agency
ECDC	East Carbon Development Corporation
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EMSW	Engineered Municipal Solid Waste
EPA	Environmental Protection Agency
EPI	Energy Products of Idaho
EPRI	Electric Power Research Institute

F

FBC	Fluidized Bed Combustion
FOC	Finding of Conformance
FPRS	Facility and Plan Review Subcommittee

G

GDD	Garbage Disposal District

H

HAP	Hazardous Air Pollutant
HCl	Hydrochloric Acid
HHW	Household Hazardous Waste
HHWE	Household Hazardous Waste Element
HPS	Hot Pneumatic Separator
HSC	Health and Safety Code

I

IS	Initial Study

J

JPA	Joint Powers Authority
JTD	Joint Technical Document

L

LACo	Los Angeles County
LACoDHS	Los Angeles County Department of Health Services
LACoDPH	Los Angeles County Department of Public Health
LACoPW	Los Angeles County Public Works
LACSD	County Sanitation Districts of Los Angeles County (see also CSD)

LAER	Lowest Achievable Emission Rate
LE	Lead Entity
LEA	Local Enforcement Agency
LEV	Low Emission Vehicle
LTF	Local Task Force
LUP	Land Use Permit

M

MACT	Maximum Achievable Control Technology
MOU	Memorandum of Understanding
MRF	Materials Recovery Facility
MSW	Municipal Solid Waste
MSWLF	Municipal Solid Waste Landfill
MTCI	Manufacturing and Technology Conversion International, Inc.,
MW	Megawatts

N

NAAQS	National Ambient Air Quality Standards
ND	Negative Declaration
NDFE	Nondisposal Facility Element
NESHAP	National Emission Standards for Hazardous Air Pollutants
NIOSH	National Institute for Occupational Safety and Health
NOI	Notice of Intent
NOP	Notice of Preparation
NOx	Nitrogen Oxides
NPDES	National Pollution Discharge Elimination System
NPS	National Park Service
NSPS	New Source Performance Standards
NSR	New Source Review

P

PARF	Plasma Application Research Facility
PHIMF	Puente Hills Intermodal Facility
PI	Private Industry
PM	Particulate Matter
PM_{10}	Particulate Matter Less than 10 Microns
$PM_{2.5}$	Particulate Matter Less than 2.5 Microns
PPM	Parts per Million
PRC	California Public Resources Code
PSA	Permit Streamlining Act of 1977
PSD	Prevention of Significant Deterioration
PURPA	Public Utility Regulatory Act
PW	Los Angeles County Public Works (see LACoPW)

R

R=RCBC	Rotary Cascading Bed Combustion
RCRA	Resource Conservation and Recovery Act
RDF	Refuse Derived Fuel
RDSI	Report of Disposal Site Information
RFI	Report of Facility Information
ROWD	Report of Waste Discharge
RWQCB	Regional Water Quality Control Board

S

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
SE	Support Entity
SERRF	Southeast Resource Recovery Facility
SIC	Standard Industrial Code
SIP	State Implementation Plan
SNCR	Selective Non-Catalytic Reduction
SO_2	Sulfur Dioxide
SO_x	Sulfur Oxide
SRRE	Source Reduction and Recycling Element
SWANA	Solid Waste Association of North America
SWIMS	Solid Waste Information Management System
SWF	Solid Waste Facility
SWFP	Solid Waste Facility Permit
SWRCB	State Water Resources Control Board

T

T-BACT	Best Available Control Technology for Toxics
TF	Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force
TPD	Tons per Day
TPW	Tons per Week
TPY	Tons per Year
TS	Transfer Stations

U

UPRR	Union Pacific Railroad
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey

V

VOC	Volatile Organic Compound

W

WBR	Waste-by-Rail
WC	California Water Code
WDR	Waste Discharge Requirement
WTE	Waste-to-Energy (Transformation)
WTPD	Wet Tons per Day

ES

Executive Summary


Los Angeles County is planning
its future use of landfill resources,
to ensure the health and safety of
County residents and businesses.

EXECUTIVE SUMMARY

BACKGROUND & PURPOSE

The California Integrated Waste Management Act of 1989 (AB 939), as amended (Section 40000 et seq. of the California Public Resources Code), requires each county to prepare a countywide siting element that describes how the county, and the cities within the county, plan to manage the disposal of their solid waste for a 15-year planning period. The existing Los Angeles County Countywide Siting Element (CSE) was approved by the majority of the cities within the County which contain a majority of the population and the Board of Supervisors in January 1998. This revised CSE document, when approved by a majority of the cities containing a majority of the incorporated population in the County, the County of Los Angeles Board of Supervisors, and the California Department of Resources Recycling and Recovery (CalRecycle), will replace the existing CSE and will cover the planning period beginning 2018 through 2033.

While the primary purpose of the CSE is to identify disposal capacities, the document also discusses waste prevention, materials reuse, recycling, and alternatives to landfills since the ability to adequately manage solid waste on a long-term basis Countywide is contingent upon comprehensively analyzing all factors.

Given the County's large population and the size of its economy, local landfill capacities are rapidly being consumed, making it imperative that the long-term planning for management of post-recycled residuals be established in order to ensure adequate disposal capacities continue to exist into the future for the health and safety of County residents and businesses.

Key Terms

Solid Waste:
Refers to 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.

Goals:
Refers to the desired results of the CSE that 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

Policies:
Refers to the strategies which will be implemented to achieve the goals of the CSE.

Class III Landfills:
Refers to a land disposal site only permitted to accept nonhazardous solid waste materials where site characteristics and containment structures isolate the solid waste from the waters of the State.

Solid Waste Management:
Refers to a planned program for effectively controlling the generation, storage, collection, transportation, processing and reuse, conversion or disposal of solid wastes in a safe, sanitary, aesthetically acceptable, environmentally sound and economical manner.

Solid waste disposal capacities are provided through existing or planned landfills and transformation facilities, as well as by developing environmentally sustainable alternative technologies to reduce landfill disposal for residual materials that are not reduced, reused, recycled, or composted. AB 939 also mandates that the CSE establish **goals**, **policies**, and guidelines for the proper planning and siting of **Class III landfills**, inert waste landfills, and alternatives to landfill technologies such as conversion technologies or transformation, on a Countywide basis. Accordingly, the CSE offers strategies and establishes siting criteria to aid in evaluating the feasibility of potential sites for the development of such solid waste management and disposal facilities.

The CSE describes each of the existing and planned solid waste disposal and management sites available for use by jurisdictions in Los Angeles County, and offers goals and strategies through which current and future solid waste management infrastructure needs can be met in a comprehensive and environmentally sustainable manner. Since the CSE serves mainly as a long-term planning and policy document, rather than a specific infrastructure development program, any other definitive site-specific information should be obtained directly from the sites and projects. It should also be noted that sites and projects are subject to all requirements of the California Environmental Quality Act (CEQA); Federal, State, regional, and local rules and regulations; environmental justice requirements; and maintain consistency with the jurisdictions' General Plan.

The California Integrated Waste Management Board (CIWMB), the predecessor of CalRecycle approved the original Los Angeles County CSE on June 1998.

Significant Changes to the Revised Countywide Siting Element

AB 939 recognizes that landfills and transformation facilities are necessary components of any integrated solid waste management system and essential components of the waste management hierarchy. However, due to significant public opposition, unavailability of suitable sites, environmental concerns, and the current regulatory framework, it has become increasingly difficult to expand and/or site, permit, and operate new landfills and transformation facilities within the County.

In order to ensure that a sustainable **solid waste management** system continues to exist into the future, the hierarchy through which solid waste has been traditionally managed and viewed must be shifted.

The revised CSE embraces a new "inverted" solid waste management paradigm which reverses the traditional hierarchy by resorting to transformation facilities and landfills, only after all other efforts have been exhausted. In the new paradigm (see **Figure 1-1**), emphasis is being redirected onto efforts to first reduce, reuse, and recycle. The remaining materials are then processed through **alternative technologies**, such as **conversion technologies**, to further extract beneficial uses from otherwise disposed materials. Finally, the remaining materials which should ideally constitute the least amount of waste are to be taken to **transformation facilities**, or disposed of at in-County or out-of-County landfills.

This new waste management paradigm facilitates the County's goal to protect the health, safety, and economic well-being of residents; and provide an environmentally safe, efficient, and economically viable solid waste disposal system.

This revised CSE, which covers the 15-year planning period beginning 2018 through 2033, contains the following significant changes from its previous version:

- Removal of Elsmere Canyon and Blind Canyon from the CSE in accordance with the County of Los Angeles Board of Supervisors' decision on September 30, 2003, to remove those sites from the list of potential new landfill sites;
- Update of the goals and policies to be consistent with the new solid waste management paradigm, to enhance the comprehensiveness of Los Angeles County's solid waste management system and incorporate current and upcoming solid waste management processes and technologies;

- Promotes the development of alternatives to landfill technologies, such as conversion technologies, on a Countywide basis; and
- Promotes the development and use of infrastructure to transport solid waste to out-of-County landfills to complement the County's waste management system, such as the Mesquite Regional Landfill waste-by-rail system.

Preparation, Approval and Revision Process

The CSE has been prepared by Los Angeles County Public Works, Environmental Programs Division, in concert with the Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force (Task Force).

The content and format of the CSE was prepared pursuant to the statutory requirements of Public Resources Code (PRC), Sections 41700 through 41721.5. These requirements for the preparation of a siting element are further clarified in regulations adopted by CalRecycle, and approved by the California Office of Administrative Law (California Code of Regulations [CCR], Title 14, Division 7, Chapter 7, Article 6.5, Sections 18755 through 18756.7).

PRC, Section 41721 also requires the CSE to be approved by the County and by a majority of the cities within the County that contain a majority of the population of the incorporated area of the County. In addition, CalRecycle must approve the CSE.

CCR, Title 14, Chapter 9, Section 18776, requires that each county prepare and adopt a Countywide Siting Element and Summary Plan which shall be part of the Countywide Integrated Waste Management Plan (CoIWMP), pursuant to PRC, Sections 41700 through 41822.

CCR, Title 14, Chapter 9, Section 18788, requires that prior to the fifth anniversary of CalRecycle's approval of a CoIWMP, or its most recent revision, the local task force complete a review (the Five-Year Review) of the CoIWMP in accordance with PRC, Sections 40051, 40052, and 41822, to ensure that the county's waste management practices remain consistent with the hierarchy of waste management practices defined in PRC, Section 40051. If a revision is necessary, the county or regional agency shall submit a CoIWMP revision schedule to CalRecycle. The county shall revise the CoIWMP in the areas noted as deficient in the CoIWMP Review Report and/or as identified by CalRecycle, and resubmit its CoIWMP pursuant to the requirements of CCR, Sections 18780 through 18784. The county shall submit all revisions of its CoIWMP to CalRecycle for approval, pursuant to the requirements of CCR, Sections 18784 through 18786.

Following submittal of a locally adopted CoIWMP to CalRecycle, CCR, Title 14, Chapter 9, Section 18785, requires CalRecycle to have at least 90 days, but not more than 120 days, with a median of 105 days, to review and act upon the CoIWMP. CalRecycle, at a public hearing, shall determine whether the CoIWMP meets the requirements of AB 939, as amended. After considering public testimony, input from the local task force, and written comments, CalRecycle shall approve, conditionally approve, or disapprove the CoIWMP. CalRecycle shall either adopt a resolution approving or conditionally approving the CoIWMP, or issue a notice identifying deficiencies in the CoIWMP.

ES Table 1 provides a summary of the CSE and **Table 1-1** outlines the CSE preparation, approval, and revision process.

Key Terms

Alternatative Technologies:
Refers to a technology capable of processing residual municipal solid waste (MSW), such as conversion technology, transformation, or other emerging technologies, in lieu of land disposal.

Conversion Technologies:
Refers to a wide array of technologies capable of converting post-recycled or residual solid waste into useful products, green fuels, and renewable energy through non-combustion thermal, chemical, or biological processes. Conversion technologies may include mechanical processes when combined with a non-combustion thermal, chemical, or biological conversion process.

Transformation (waste-to-energy) Facility:
Refers to 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.

Landfill:
Defined in CCR, Title 27, Section 20164 as "a waste management unit at which waste is discharged in or on land for disposal. It does not include surface impoundment, waste pile, land treatment unit, injection well, or soil amendments."

Expansion:
Refers to a solid waste facility which has: (1) an increase in the physical dimension of the facility; (2) an increase in the permitted daily disposal rate, throughput, or intake/processing capacity; (3) an extension or renewal of a permit whose expiration date may affect the operation of the facility, whichever is applicable; and/or (4) any permitted activity that results in increase in permitted disposal capacity.

ES TABLE 1: Summary of the Los Angeles County Countywide Siting Element

CHAPTER	DESCRIPTION
1.0 Introduction	**Chapter 1** 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 since 1986 in addressing the solid waste needs of Los Angeles County.
2.0 Goals And Policies	**Chapter 2** 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.
3.0 Existing Solid Waste Disposal Facilities	**Chapter 3** identifies all existing permitted landfills and transformation facilities in Los Angeles County. The chapter also includes a series of tables and maps providing essential information on each facility.
4.0 Current Disposal Rate and Assessment of Disposal Capacity Needs	**Chapter 4** 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 Los Angeles County will experience a need in permitted daily disposal capacity based on status quo, as well as other alternatives identified in the document.
5.0 Alternative Technologies	**Chapter 5** describes facilities which provide an alternative to existing solid waste disposal technologies and provides a brief assessment on their current state of development. This chapter also describes a number of benefits, advantages, and environmental constraints, regarding the identified alternative technologies.

CHAPTER	DESCRIPTION
6.0 Facility Siting Criteria	**Chapter 6** provides an overview of regulatory requirements for siting of solid waste landfills and alternative technology facilities. As required by State law, and in accordance with CalRecycle's regulations, this chapter also includes the siting criteria for development of new landfills, alternative technology facilities, conversion/recovery technologies, and expansion of existing facilities.
7.0 Proposed In-County Facility Location & Description	**Chapter 7** identifies and provides information on existing landfill expansions and proposed expansions in the County and/or cities during the planning period.
8.0 General Plan Consistency	**Chapter 8** provides information on the consistency of each potential new landfill site and potential expansion of an existing site, which was listed in Chapter 7, with the appropriate jurisdiction's General Plan.
9.0 Out-of-County Disposal Facilities	**Chapter 9** identifies existing and proposed landfills in adjacent counties which may be available for use by jurisdictions in Los Angeles County.
10.0 Finding of Conformance	**Chapter 10** describes the procedure for obtaining a Finding of Conformance with the Los Angeles County Countywide Siting Element for Class III landfills, inert waste landfills, alternative technology facilities (e.g., conversion technology, transformation), under the auspices of the Los Angeles County Solid Waste Management Committee/ Integrated Waste Management Task Force.

GOALS & POLICIES

Chapter 2 ("Goals & Policies") contains the County's solid waste management goals and policies developed in concert with the Task Force as required by State law (see **Table 1-2**). The Chapter also identifies: (1) the agencies responsible for implementing the CSE; (2) the schedule for implementation; and (3) the funding source for the administration of the document.

The goals are as follows:

1. To continue to promote extended producer responsibility, development of adequate markets to increase the use of recycled materials and compost products in an environmentally responsible manner.
2. To decrease the volume and tonnage of solid waste being disposed of at landfills by continuing to implement and expand source reduction, recycling, reuse, composting, and public education programs as well as by promoting the development of alternative technologies that complement recycling efforts.
3. To promote, encourage, and expand waste diversion activities by solid waste facility operators.
4. To conserve Class III landfill capacity through recycling and reuse of inert waste, disposal of inert waste at inert waste landfills, increased waste disposal compaction rates, recycling of organic materials from the waste stream, and the use of appropriate materials, such as tarps, for landfill daily cover, provided the use of such materials protects the health, welfare, and safety of the citizens in Los Angeles County, as well as the environment.
5. To protect the health, welfare, safety, and 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 management system.
6. To foster the development of alternative technologies as alternatives to landfill disposal.
7. To provide siting criteria that considers and provides for the environmentally sound and technically feasible development of solid waste management facilities, including alternative technology facilities (e.g., conversion technology, transformation) and landfills.
8. To protect the health, welfare, and safety of all citizens of the 88 cities in Los Angeles County and the County unincorporated communities by addressing their solid waste disposal needs during the 15-year planning period through development of environmentally sound and technically feasible solid waste management facilities for solid waste that cannot be reduced, reused, recycled, composted, or otherwise put to beneficial use.

   This goal incorporates policies to:

   - **Enhance in-County landfill disposal capacity, and**
   - **Facilitate utilization of out-of-County/remote disposal facilities.**

Waste prevention, materials reuse, recycling, and alternatives to landfills.

EXISTING SOLID WASTE DISPOSAL FACILITIES

Chapter 3 ("Existing Solid Waste Disposal Facilities") identifies all existing permitted Class III landfills, inert waste landfills/inert debris facilities, and transformation facilities in the County.

Map 3-1 depicts 10 permitted Class III landfills[1] (six major landfills[2] and four minor landfills); one permitted inert waste landfill; and two transformation facilities operating in the County. Additionally, there were 10 inert debris[3] facilities operating in Los Angeles County.

Since the time when the original CSE was approved by the CIWMB on June 24, 1998, several changes in the status of the facilities have occurred. These changes include: (1) removal of Elsmere and Blind Canyons as potential landfill sites in accordance with the County Board of Supervisors' decision; (2) closure of Puente Hills Landfill on October 31, 2013, as required by its land use permit; (3) closure of Bradley Landfill and Recycling Center on April 14, 2007, as required by its land use permit; (4) expansion and operation of Sunshine Canyon Landfill as a combined city/county landfill on December 31, 2008; (5) reclassification of inert waste landfills to inert debris engineered fill operations in 2006; and (6) expansions of Antelope Valley and Lancaster Landfills in 2011 and Chiquita Canyon Landfill in 2018.

1 As of December 31, 2018, there are 10 permitted Class III landfills; Puente Hills Landfill officially closed on October 31, 2013.
2 As of December 31, 2018, there are 6 major landfills; Puente Hills Landfill officially closed on October 31, 2013.
3 As of December 31, 2018, there are 11 inert debris facilities.

CURRENT DISPOSAL RATE & ASSESSMENT OF DISPOSAL CAPACITY NEEDS

Chapter 4 ("Current Disposal Rate and Assessment of Disposal Capacity Needs") contains disposal rate calculations and projections of available disposal capacities for each of the years within the 15-year planning period from 2018 through 2033. Several scenarios were analyzed for purposes of illustrating the extents to which implementing certain waste management strategies could impact the County's disposal capacities. Variables such as disposal trends, waste diversion rates, anticipated closures of local landfills, utilization of out-of-County facilities through the waste-by-rail system, and the development of alternatives to landfill technologies were considered in the analyses. For example, the first scenario shows that a disposal capacity shortfall may occur in the event that exports to out-of-County facilities do not occur.
Table 4-8 provides a summary of each disposal capacity need analysis scenario.

2018 Disposal Quantities

In 2018, residents and businesses within Los Angeles County disposed of approximately 10.8 million tons of solid waste at existing permitted land disposal and transformation facilities located in and out of the County. Of this amount, approximately 5.0 million tons were disposed of at in-County Class III landfills; 366,642 tons at transformation facilities; 291,877 tons at the permitted inert waste landfill; and 5.12 million tons at out-of-County Class III landfills (see **Figure 4-2**). In addition, approximately 175,737 tons of solid waste were imported to Los Angeles County Class III landfills and transformation facilities from Orange, Riverside, San Bernardino, Ventura, and other counties in 2018. The average countywide disposal rate in 2018 was 34,534 tons per day (tpd) over a six-day operating week; of which 16,011 tpd were disposed of at Class III landfills; 1,175 tpd at transformation facilities; 936 tpd at the permitted inert waste landfill; and 16,413 tpd exported to out-of-County Class III landfills.

Due in large part to (1) increased recycling/**diversion** efforts and (2) reclassification of inert waste landfills as inert debris engineered fill operations, the annual disposal quantity of 11.0 million tons during 2018 was significantly lower in comparison to the 1990 disposal amount of approximately 16.1 million tons. Additionally, the aggressive waste diversion programs implemented by jurisdictions throughout the County over the years have had a substantial impact on lowering disposal volumes.

Figures 4-4 and **4-5** depict the solid waste disposal capacity projections for each disposal capacity analysis scenario. **ES Map 1** depicts the waste disposal by jurisdiction of origin (e.g., city/unincorporated area, county) at permitted municipal solid waste facilities both in and out of the county.

Key Terms

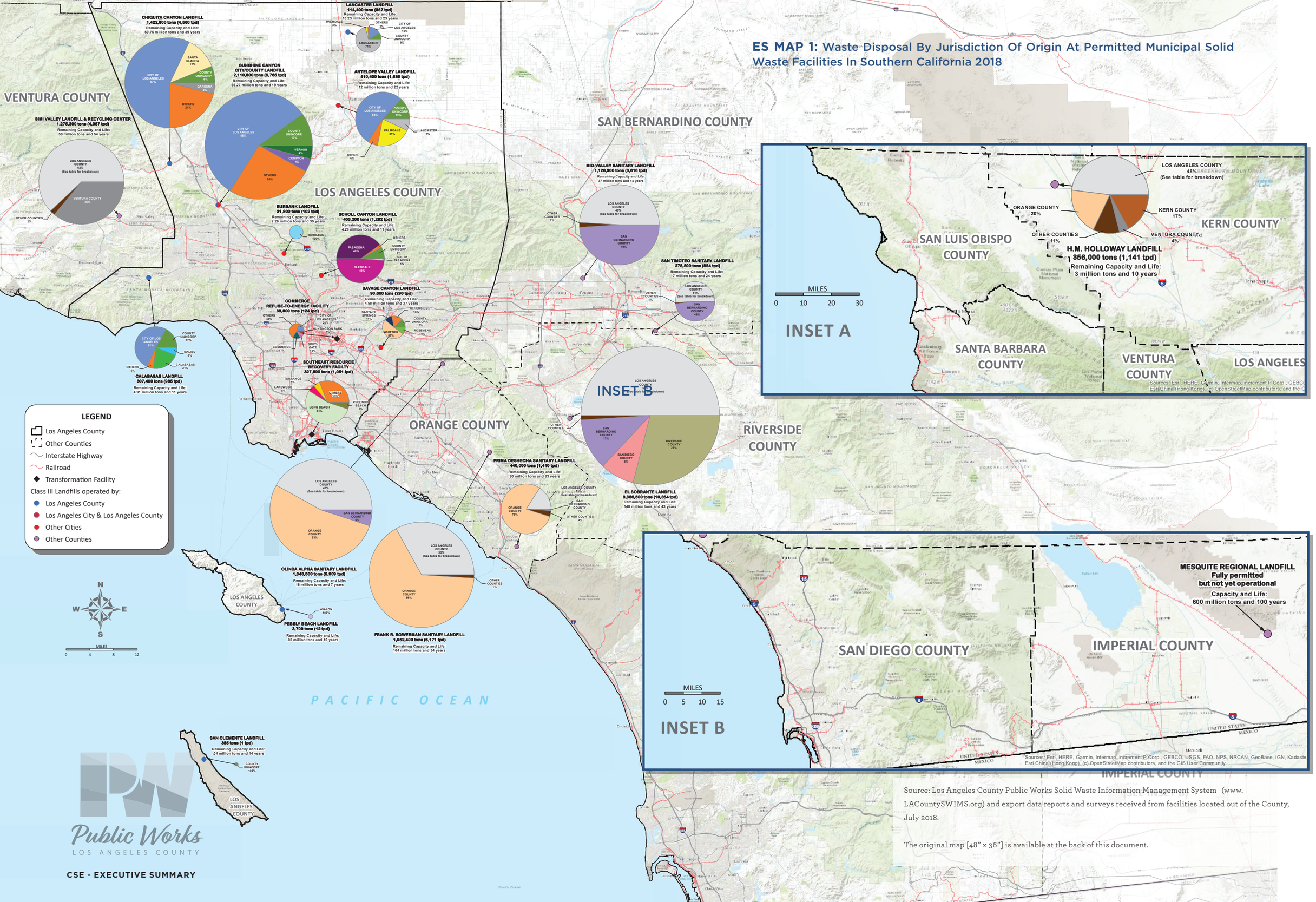
Disposal:
Refers to the management of solid waste through landfilling or transformation at a permitted solid waste facility.

Disposal Capacity:
Refers to activities which reduce or eliminate the amount of solid waste from solid waste disposal.

Waste-by-Rail or Rail-Haul:
Refers to the rail transportation of solid waste between a solid waste station with rail-loading capability and an out-of-County solid waste landfill, transformation facility, conversion technology facility, biomass processing facility, etc."

Diversion:
Refers to activities which reduce or eliminate the amount of solid waste from solid waste disposal.

ES MAP 1: Waste Disposal By Jurisdiction Of Origin At Permitted Municipal Solid Waste Facilities In Southern California 2018



Source: Los Angeles County Public Works Solid Waste Information Management System (www.LACountySWIMS.org) and export data reports and surveys received from facilities located out of the County, July 2018.

The original map [48" x 36"] is available at the back of this document.

Public Works
LOS ANGELES COUNTY

Public Works

LOS ANGELES COUNTY

ES MAP 1: Waste Disposal By Jurisdiction Of Origin At Permitted Municipal Solid Waste Facilities In Southern California 2018

Remaining Permitted In-County Disposal Capacity

As of December 31, 2018, the remaining permitted Class III landfill capacity in the County was estimated at 163.39 million tons (194.35 million cubic yards) (see **Table 3-2**). Based on the 2018 annual disposal rate plus waste imported into the County, reliance on in-County Class III landfills alone will not be sufficient in accommodating the County's disposal needs throughout the 15-year planning period.

Factors that may further jeopardize the availability of Class III landfill disposal capacities include: (1) expiration of Land Use Permits, Waste Discharge Requirements Permits, Solid Waste Facilities Permits, and air quality permits; (2) restrictions on the acceptance of waste generated outside wasteshed boundaries; (3) permit restrictions on the amount of waste that can be accepted daily and/or weekly; (4) geographic barriers; and/or (5) limitations on the amount of waste that can be handled by a facility due to limited manpower and equipment.

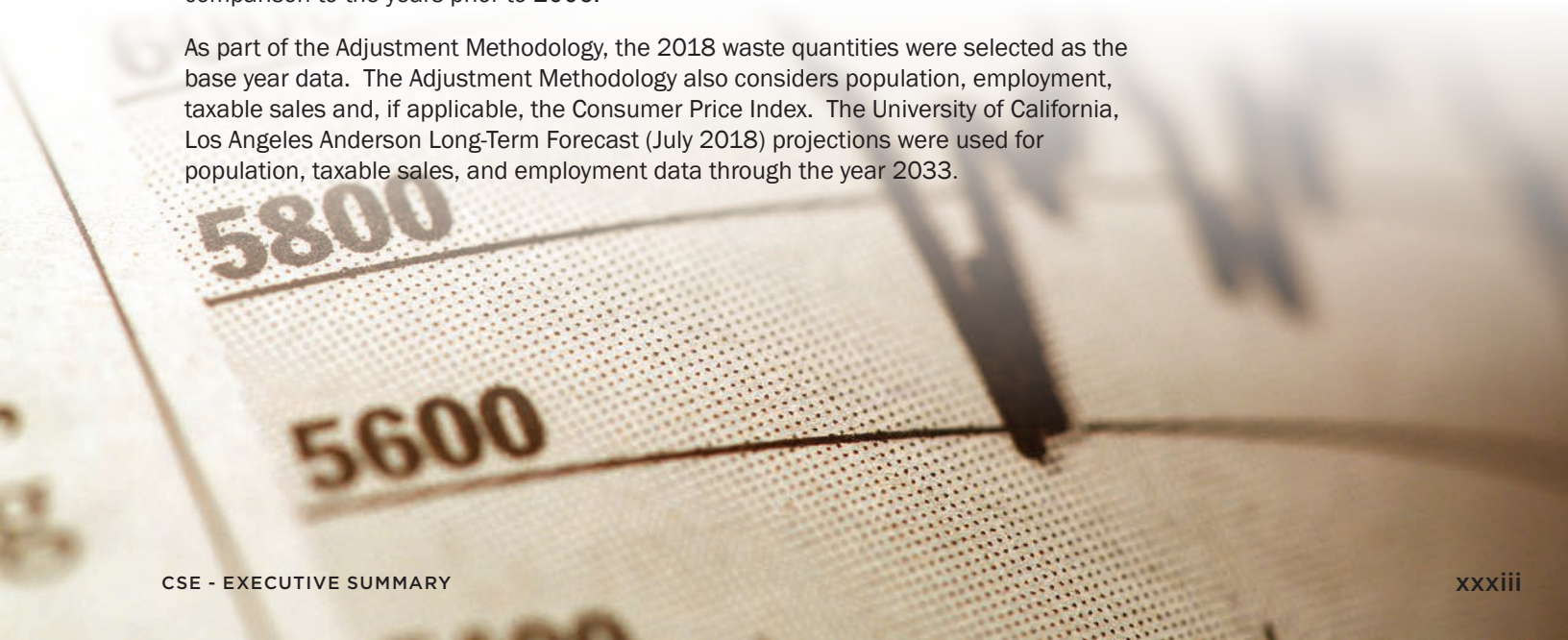
As of December 31, 2018, the total remaining capacity at the permitted inert waste landfill in the County is estimated at approximately 57.72 million tons (46.17 million cubic yards). Based on the 2018 annual disposal rate of 358,254 tons of inert waste per year, this capacity will be sufficient for approximately 28 years. The CSE does not contain any analyses for inert waste landfills due to the increasing trend towards the recycling of construction and demolition waste.

As of December 31, 2018, there is one transformation facility, Southeast Resource Recovery Facility (SERRF), within the County with a permitted daily processing capacity of 2,240 tpd (average over a six-day operating week). The second facility, Commerce Refuse-to-Energy Facility (CREF) close in June 2018. SERRF facility is expected to operate at its current permitted daily capacity throughout the planning period. Transformation technology has been an effective alternative to landfill disposal and is anticipated to continue to serve as an integral component of the County's solid waste management system in the future. This technology has proven to be commercially, technically, and environmentally feasible as demonstrated by their successful operations and meeting air quality standards.

Waste Generation and Projections of Disposal Capacity Needs

Waste generation projections in the CSE were obtained using CalRecycle's Adjustment Methodology which considers the effects of economic and population growth on solid waste generation. Generally, the amount of solid waste generated is proportional to population and/or economics. This relationship was particularly evident during the recent economic recession as a result of which solid waste generation decreased dramatically in comparison to the years prior to 2006.

As part of the Adjustment Methodology, the 2018 waste quantities were selected as the base year data. The Adjustment Methodology also considers population, employment, taxable sales and, if applicable, the Consumer Price Index. The University of California, Los Angeles Anderson Long-Term Forecast (July 2018) projections were used for population, taxable sales, and employment data through the year 2033.



Adequacy of Existing Remaining Disposal Capacity

Tables 4-11 through **4-17** show seven scenarios for purposes of analyzing the adequacy of the countywide disposal capacity over the 15-year planning period under varying circumstances. For example, the magnitude of the countywide waste diversion rate would have an impact on the amount of waste that would require disposal, since the greater the amount of materials diverted or extracted from the waste stream through processes such as recycling and source reduction, the lesser the remaining amount that would require disposal. Additionally, factors that would increase the available disposal capacity include landfill expansions, increases in exports to out-of-County facilities by utilizing the waste-by-rail system, and the development of alternatives to landfill technologies. Accordingly, each of the seven scenarios considers these factors to varying extents and combinations to illustrate the respective impacts on the overall disposal demand and available disposal capacities for the 15-year planning period. The scenario analyses assume the full implementation of AB 939 waste diversion programs and that all jurisdictions in the County will meet or exceed the current 50 percent goal throughout the planning period.

Projected Disposal Rate and Assessment of Disposal Capacity Needs

The anticipated disposal needs of the County cannot be met by pursuing a single alternative (i.e., transformation technologies, out-of-County disposal, utilization of the waste-by-rail system, etc.). Jurisdictions in the County must work on all fronts simultaneously in order to avert the disposal capacity shortfall in the short, medium, and long term. For example, Scenario VII demonstrates that with increases in diversion rates up to 75 percent, expansions of in-County landfills, exports to out-of-County facilities, the utilization of alternative technology capacity, the utilization of the waste-by-rail system or combinations thereof, a disposal capacity shortfall could be averted (See **Figure 4-4** and **4-5**).

ALTERNATIVE TECHNOLOGIES

Chapter 5 ("Alternative Technologies") describes efforts to research, promote, and develop alternatives to landfills, such as conversion technologies, as one of the key strategies for managing solid waste in the County. Conversion technologies refer to processes capable of converting post-recycled residual solid waste into useful products, including renewable and environmentally benign fuels, chemicals, marketable products, and other sources of clean energy. This Chapter also describes the benefits and challenges involved in implementing alternative technology facilities, as well as the County's desire to continue forging pathways for such environmentally sustainable waste management systems.

Fostering the development of alternative technologies as alternatives to landfill disposal.

FACILITY SITING CRITERIA

Chapter 6 ("Facility Siting Criteria") provides an overview of the regulatory requirements associated with the siting of alternative technology facilities (e.g., conversion technology, transformation) and landfills. This Chapter also identifies the siting criteria for developing new landfills and alternative technology facilities, as well as expanding existing facilities.

Locations of Proposed In-County Facilities

Chapter 7 ("Proposed In-County Facility Location & Description") identifies the locations and provides information on proposed new landfills, and other alternative technology facilities (e.g., conversion technology, transformation), if any; and proposed expansions of existing Class III landfills, permitted inert waste landfills, and transformation facilities in the County and/or cities during the planning period, if any.

Potential Expansions and/or Developments of Class III Landfills, Permitted Inert Waste Landfills, and Alternative Technology Facilities

Chapter 7 ("Proposed In-County Facility Location & Description") identifies areas/sites within the cities and the County unincorporated areas where the CSE's Siting Criteria may be applicable as part of developing new Class III landfills, inert waste landfills, and alternative technology facilities (e.g., conversion technology, transformation), or expanding existing facilities.

The CSE requires that prior to the development of such facilities the facility proponent must: (1) show that the project is consistent with the CSE and the General Plan and/or land use permitting/zoning requirements; (2) undergo a vigorous site-specific assessment and permitting process at the Federal, State, and local levels; and (3) address all environmental concerns as mandated by CEQA. The local task force would determine whether a particular project is consistent with the CSE and its Siting Criteria through a Finding of Conformance process.

Table 7-1 lists proposed potential locations for alternative technology facilities in the County.

GENERAL PLAN CONSISTENCY

Chapter 8 ("General Plan Consistency") provides information regarding the consistency with the appropriate jurisdiction's General Plan when siting any new potential Class III landfills, permitted inert waste landfills, and alternative technology facilities (e.g., conversion technology, transformation), and potentially expanding existing facilities as listed in **Chapter 7**.

Consistency with City & County General Plans

In the event it is determined that the solid waste disposal capacity provided by existing facilities within the County will be exhausted within the 15-year planning period, AB 939, as amended, requires the CSE to identify sites and areas for any new potential Class III landfills, inert waste landfills, alternative technology facilities (e.g., conversion technology, transformation), and potential expansions of existing facilities.

The authority for determining the consistency with the General Plan lies with the government of the local jurisdiction in which the project is located or is to be located. As such, the siting and protection of the areas identified for future use as solid waste facilities are subject to the land use regulations (e.g., General Plan, Zoning, and LUPs) of the local jurisdictions. Accordingly, areas identified in the CSE are considered to be "reserved" if the:

A. Local jurisdiction has made a specific determination that the proposed land use for the solid waste facility is consistent with its General Plan, or

B. Use of the area as a solid waste facility 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 locations and areas identified as potentially suitable for locating alternative technology facilities are considered "tentatively reserved" for the purpose of the CSE. However, areas are required to be removed from the CSE when they are not brought into consistency with the local jurisdictions' General Plan by the first five-year revision of the CoIWMP, or subsequent revisions. The local government with 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.

The preceding CSE (dated June 1997 and approved by the former CIWMB in June 1998), identified the following sites as "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 preceding CSE identified the following sites as "tentatively reserved": Blind Canyon, Scholl Canyon, and the Sunshine Canyon City/County Landfill Expansion (City of Los Angeles portion).

However, under the September 30, 2003, Board Motion Synopsis 5, the County Board of Supervisors passed a motion to remove Blind and Elsmere Canyon landfill sites from the CSE's list of potential future landfill sites. Additionally, both landfill sites/areas were not brought into consistency with the local jurisdiction's General Plan by the first five-year revision or significant revisions of the CoIWMP. Therefore, both landfill sites are removed from the CSE list of future landfill sites.

The previous Sunshine Canyon City/County Landfill Expansion (City of Los Angeles portion) proposed in 1997 was fully permitted and the subsequent proposed expansion of the landfill into a combined City/County Sunshine Canyon Landfill was also fully permitted. The Antelope Valley Landfill Expansion, Chiquita Landfill Expansion, Lancaster Landfill Expansion, and Puente Hills Expansion were also removed from the CSE since the expansions have already been fully permitted.

OUT-OF-COUNTY DISPOSAL

Chapter 9 ("Out-of-County Disposal Facilities") identifies existing and proposed landfills located in adjacent counties that may be available for use by jurisdictions in the County (see **Table 9-1**).

Furthermore, to complement the County's solid waste management infrastructure and ensure that solid waste disposal continues to be provided throughout the 15-year planning period as well as further into the future, the utilization of out-of-County disposal facilities are essential. **Chapter 9** identifies and describes out-of-County Class III landfills, and other facilities (including those with waste-by-rail capabilities), that may be available for the disposal of waste generated in the County. As a part of this analysis, this Chapter also describes the need for facilities within the County that have waste-by-rail capabilities.

FINDING OF CONFORMANCE

Chapter 10 ("Finding of Conformance") describes the procedure through which, Class III landfills, inert waste landfills, and alternative technology facilities (e.g., conversion technology, transformation) may obtain a Finding of Conformance (FOC) with the CSE, from the local task force.

The Cities and the County formed the Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force (Task Force) in July 1990 pursuant to the requirements of AB 939 (Section 40950 of the PRC). The Task Force membership consists of 17 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. **Table 1-2** provides a summary of the Task Force's roles and responsibilities in the CoIWMP.

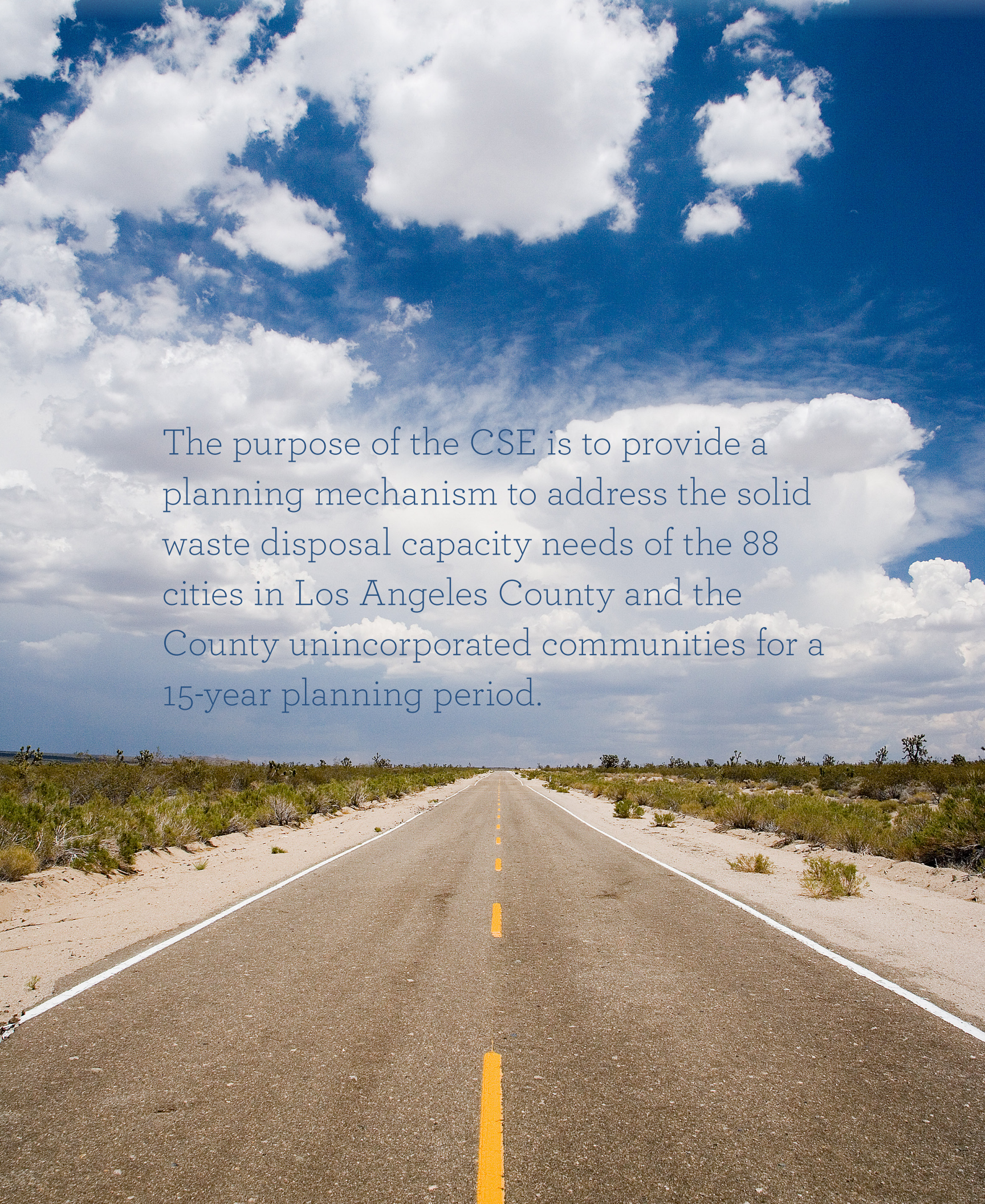
The FOC process (1) provides a mechanism for the inclusion of new and/or expansions of the existing facilities into the CSE; (2) ensures that the Siting Criteria contained in the CSE are applied and complied with and that all new and/or expansions of the existing facilities are consistent with the CSE and its Siting Criteria as listed in **Chapter 6** and **Attachment 6A** of the CSE; and (3) provides a forum through which the public, local jurisdictions, public organizations, businesses, and industry may voice their opinions regarding each individual project.

Section 50001 of the PRC requires that after CalRecycle approves a CoIWMP, no person shall establish a new or expand an existing solid waste disposal facility in the County unless the proposed facility is identified in and is consistent with an approved CSE, or amendment thereof. The FOC process is used to accomplish this mandate in the County.

CONCLUSION

The various scenario analyses in the CSE demonstrate that the County could meet its disposal capacity needs by promoting extended producer responsibility, continuing to enhance diversion programs and increasing the countywide diversion rate, and developing conversion and other alternative technologies. Additionally, by utilizing available or planned out-of-County disposal facilities, and developing infrastructure such as the waste-by-rail system, to facilitate exportation of waste to out-of-County landfills, the County may further ensure adequate disposal capacity is available throughout the planning period.

1 Introduction



The purpose of the CSE is to provide a planning mechanism to address the solid waste disposal capacity needs of the 88 cities in Los Angeles County and the County unincorporated communities for a 15-year planning period.

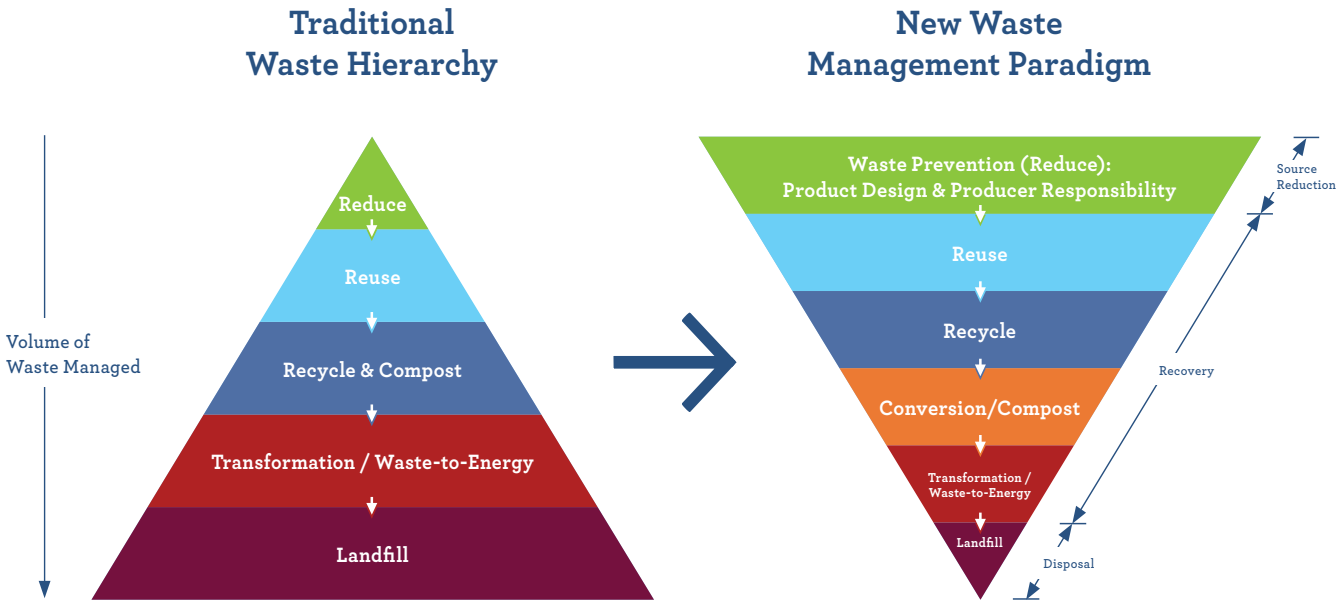
1.0 INTRODUCTION

1.1 PURPOSE

The California Integrated Waste Management Act of 1989, Assembly Bill 939 (AB 939), as amended (Section 40000 et seq. of California Public Resources Code (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 have taken place.

AB 939 recognizes that landfills and transformation facilities are necessary components of any integrated solid waste management system and essential components 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 and land disposal. In the current AB 939 integrated waste management hierarchy, the largest volume of solid waste is managed through disposal. However, the Los Angeles County Countywide Siting Element (CSE) proposes a new solid waste management paradigm (see **Figure 1-1**) with the following waste management hierarchy (from most to least preferred): (1) waste prevention (including source reduction, product design, and producer responsibility); (2) reuse; (3) recycling; (4) conversion/compost; (5) transformation/**waste-to-energy**; and (6) landfilling. In the new paradigm, the least volume of waste would be managed through disposal.

FIGURE 1-1: Solid Waste Management Hierarchy



Key Terms

Landfill
Defined in CCR, Title 27, Section 20164 as "a waste management unit at which waste is discharged in or on land for disposal. It does not include surface impoundment, waste pile, land treatment unit, injection well, or soil amendments."

Solid Waste
Defined in PRC Section 40191 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 [California] Health and Safety Code [HSC]). (3) Medical waste regulated pursuant to the Medical Waste Management Act (Part 14 (commencing with Section 117600) of Division 104 of the [HSC]). 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."

The CSE addresses some of the components of the new waste management hierarchy, such as Class III landfills, inert waste landfills, and alternative technology facilities (e.g., conversion technology, transformation. The other components of the waste management hierarchy, namely, waste prevention (including source reduction), reuse, recycling, and composting, are addressed in each jurisdiction's Source Reduction and Recycling Element (SRRE), which, as mandated by State law, have been prepared separately by each city in Los Angeles County and by Los Angeles County Public Works, on behalf of the County unincorporated communities, and are summarized in the Los Angeles County Integrated Waste Management Summary Plan.

The purpose of the CSE for Los Angeles County is to provide a planning mechanism to address the **solid waste disposal** capacity needs of the 88 cities in Los Angeles County and the County unincorporated communities for a 15-year planning period (between 2018 and 2033), through a combination of existing facilities, increase in diversion rate, promotion of Extended Producer Responsibility, use of alternative technologies, expansion of the existing facilities, new facilities, out-of-County disposal, 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 in the County and the waste management industry to use to plan for and develop adequate disposal capacity within and outside the County. The CSE identifies sites which may be potentially suitable for development by interested parties for use as disposal facilities, including alternative technology facilities (e.g. conversion technology, transformation). 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 DEFINITIONS

Definitions of key terms used in this Chapter are included when referenced. For a more complete listing of acronyms and definitions, please refer to the List of Acronyms and Glossary of Terms at the beginning and end of this document, respectively.

1.3 SPECIFIC REQUIREMENTS

The basic statutory requirements for the content and format of the CSE are found in PRC Chapter 4, Article 1 (Element Preparation), Sections 41700 through 41704; Article 2 (Tentative Reservations), Sections 41710 through 41712; Article 3 (General Plan Consistency), Section 41720; and Article 4 (Local Agency Approval), Sections 41721 through 41721.5. The content of the CSE was prepared in compliance with the above laws and in accordance with regulations outlined in California Code of Regulations (CCR), Title 14, Chapter 9 (Planning Guidelines and Procedures for Preparing and Revising the Countywide Integrated Waste Management Plans), Article 6.5 (Siting Elements), Sections 18755 through 18756.7, and Article 6.6 (Countywide and Regional Agency Integrated Waste Management Plans), Section 18757 (General Requirements), which the California Department of Resources and Recovery (CalRecycle) developed and the California Office of Administrative Law approved in July 1994.

Regulations governing the procedures for preparing and revising the CSE are contained in CCR, Article 8 (Procedures for Preparing and Revising Siting Element and Summary Plan), Sections 18776 through 18788.

Similarly, the laws and regulations governing the content of the revised CSE and the procedures for preparing the revised CSE are the same as the laws and regulations mentioned above for preparing the CSE.

Key Terms

Waste-to-Energy
Refers to an incineration process in which the organic fraction of solid waste is combusted and the released heat is utilized to generate hot water, steam, and electric power, leaving the inorganic fraction (ash) as a residue. This process is also referred to as a mass-burn process.

Solid Waste Disposal
Refers to Class III landfills, inert waste landfills, alternative technology facilities (e.g., certain conversion technology, transformation), and other emerging technology facilities, pending clarification of the regulatory status of the alternative technology facilities.

1.4 BACKGROUND

1.4.1 Los Angeles County Demographics

Los Angeles County has the most extensive and complex solid waste management system (see **Figure 1-2**) in the State and possibly 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[1] of approximately 4,100 square miles and consists of 88 cities and various unincorporated County communities. Home to more than 10.1 million[2] people, it is the most populous county in the nation, larger in population than 43 states and 145 countries. Approximately 27 percent (roughly one-third) of California residents live in Los Angeles County. The County's population has increased approximately nine percent since 1995 and is projected to increase by nearly 1.0 million between 2018 and the year 2033 (see **Figure 4-1**). 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 within the County to provide enough capacity for the waste disposal needs of their residents.

The County is also the nation's largest manufacturing center. The Port of Los Angeles has one of the world's largest artificial harbors. It is one of the nation's chief fishing ports that houses one of the world's largest fish-canning centers. Most of the trade between the United States and China flows through the County. If the County were a country, it would rank among the world's largest economies[3].

The County was once the number one farm county in the nation, but over the years, agricultural importance has given way to rapid urban and industrial expansion. Now, the County is among the nation's leaders 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 the County and is currently the fastest growing source for new jobs.

The overall strong economic growth of the County in the past 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 continuing challenge lies in protecting the health, safety, and economic well-being of its residents, while continuing to provide an environmentally safe, efficient, and economically viable solid waste disposal system.

1 Land area is the size, in square units (metric and nonmetric) of all areas designated as land in the Census Bureau's national geographic (TIGER®) database.
2 The estimated population of 10.1 million people is based on U.S. Bureau of the Census, Population Estimates Program (PEP).
3 Source: Los Angeles County Economic Development Corporation

FIGURE 1-2: Fundamental Components of Solid Waste Management System

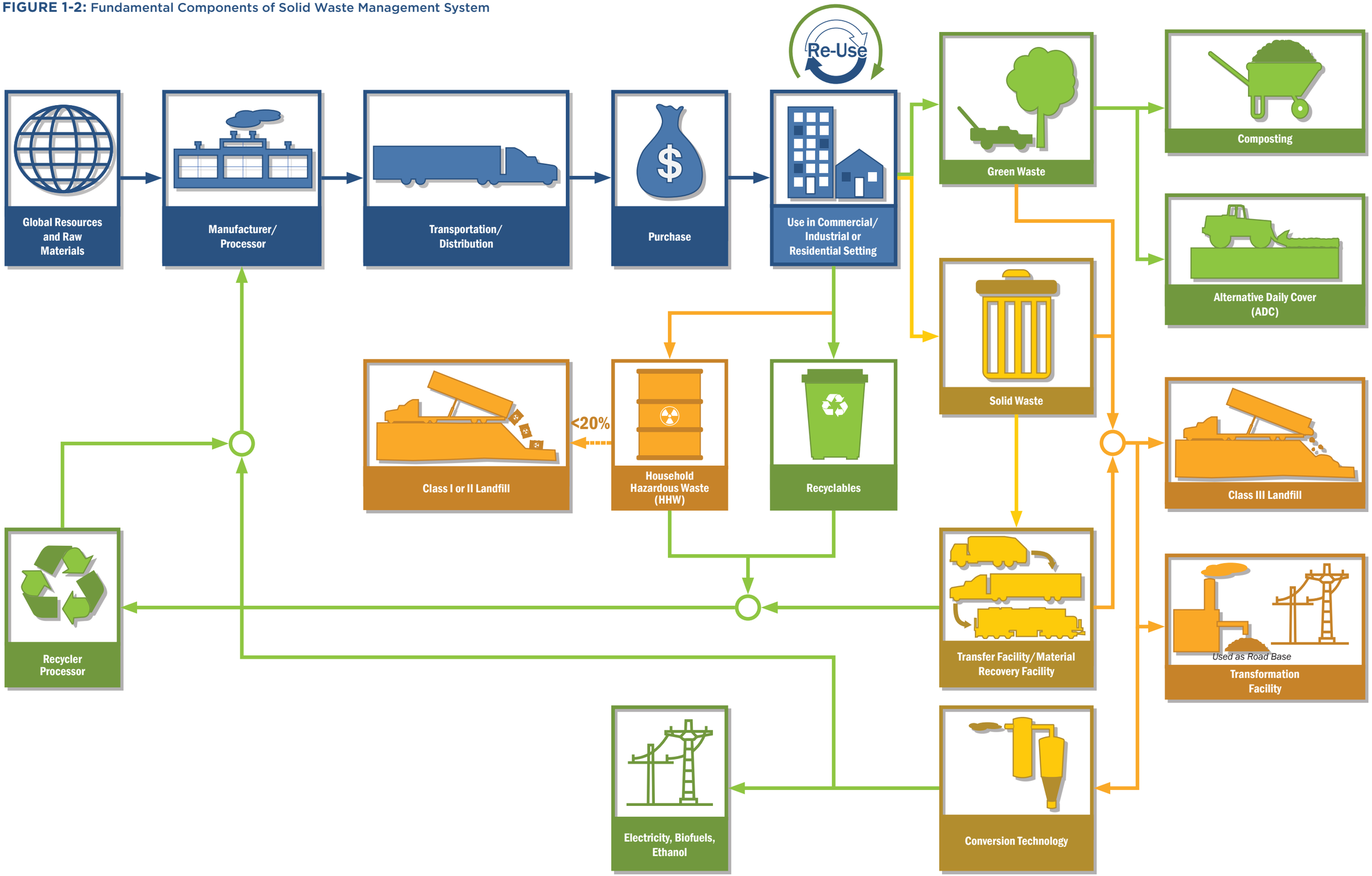
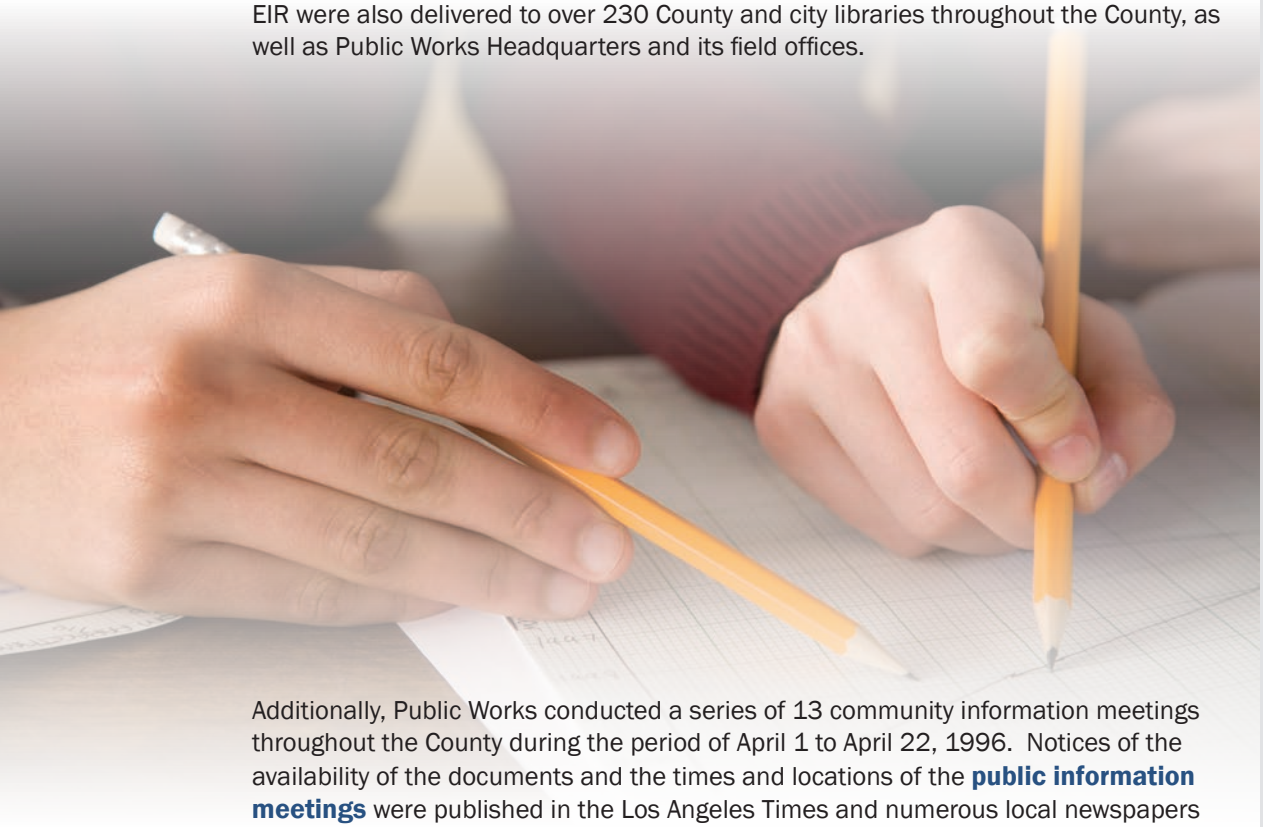


FIGURE 1-2: Fundamental Components of Solid Waste Management System

1.4.2 Development of the Previous Countywide Siting Element (Dated June 1997)

Los Angeles County Public Works (Public Works), under the auspices of the Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force (Task Force), is responsible for the preparation and revision of the CSE and its environmental document (see Sections 1.10 and 1.11).

The preparation of the Preliminary Draft Los Angeles County Countywide Siting Element, dated June 1997, and its Draft Environmental Impact Report (EIR), dated June 1996, were completed in early 1996. Subsequently, the documents were released to cities, government 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 the County, as well as Public Works Headquarters and its field offices.



Additionally, Public Works conducted a series of 13 community information meetings throughout the 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 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, Public Works worked with various groups, such as the Natural Resources Defense Council and Landfill Alternatives Save Environmental Resources (LASER), 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, were presented with appropriate responses in Volume II, Appendices 1-A through 1-D of the final draft CSE, dated June 1997, which incorporated the changes developed in response to the comments received.

PRC Section 41721 requires the CSE to 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 CalRecycle. A summary of the CSE approval and revision process as mandated by State law is provided in **Table 1-1**.

Key Terms

Public Information Meetings
Defined in CCR, Title 27, Section 21563 (d)(4) as "a meeting where the public is invited to hear and comment on the preliminary determination of the action to be taken by the EA on an accepted application package. The meeting is strictly informational and no official decision is made at the meeting regarding the formal determination on the solid waste facilities permit application. EA-conducted Informational Meetings fulfill the requirements set forth in [PRC Section] 44004 related to holding a 'public hearing', unless the EA substitutes another meeting/hearing that meets the provisions in [Section] 21660.4. The definition used herein, does not apply to public hearings, or hearings before hearing panels or hearing officers set forth in [PRC Section] 44300, Chapter 4, Articles 1 and 2, having to do with denial of solid waste facilities permits and related recourses."

1. Preparation of the Preliminary Draft Los Angeles County Countywide Siting Element (CSE) & Environmental Documents

The County shall prepare and submit the draft CSE and the necessary environmental documents to the cities, Task Force, appropriate governmental agencies, and public for a 45-day review period and conduct public information meetings to ensure public input is received.

2. Preparation of the Final Draft CSE & Environmental Documents

Based on the comments received on the draft CSE and environmental documents, the County shall prepare the final draft CSE and environmental documents and shall submit the documents to the cities for approval.

3. Local Adoption of the Final Draft CSE & Environmental Documents

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 and environmental documents. 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 and environmental documents within 90 days of receipt of the final draft CSE and environmental documents from the County. Lack of action by a city within this 90-day period would constitute tacit approval by that city.

b. If a jurisdiction disapproves the final draft CSE and environmental documents, the jurisdiction shall give written notice to the Task Force, the County Board of Supervisors, and the California Department of Resources Recycling and Recovery (CalRecycle) of the deficient areas in the final draft CSE and environmental document within 30 days of disapproval.

c. If the final draft CSE and environmental documents are 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 environmental documents and re-circulate it as required by Title 14, CCR, Sections 18779 through 18785.

4. Submittal of the Final Draft CSE and Environmental Documents to CalRecycle

Upon approval of the final draft CSE and environmental documents, which have 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 CalRecycle:

a. Three copies of the locally approved final draft CSE and environmental documents;

b. A copy of each jurisdiction's resolution approving or disapproving the final draft CSE and environmental documents;

c. A copy of the public notice for each jurisdiction's public hearing on the final draft CSE and environmental documents;

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 and environmental documents were approved by a majority of the cities representing a majority of the population in the incorporated portion of the County.

5. CalRecycle Approval of the Final Draft CSE & Environmental Documents

a. CalRecycle shall, within a timeframe of 90 to 120 days, review the final draft CSE and environmental documents, 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, CalRecycle shall either adopt a resolution approving the CoIWMP, or issue a Notice of Deficiency to the County.

b. Within 30 days of approval/disapproval, CalRecycle shall send a copy of the resolution of approval or a Notice of Deficiency to the County.

If issued a Notice of Deficiency by CalRecycle, the County, pursuant to the requirements of PRC Section 41811 and 41812, and with Sections 18780 through 18784 of Title 14 of CCR, shall revise the final draft CSE and environmental documents addressing deficiencies identified by CalRecycle, resubmit the documents to the cities for local adoption, and resubmit the documents to CalRecycle within 120 days.

Source: *Los Angeles County Public Works*, January 2014

1.4.3 Los Angeles County Solid Waste Collection and Disposal System

Solid waste for the 88 cities and the unincorporated communities in Los Angeles County is collected by both residential and commercial waste haulers through a diverse and complex system.

Waste is generally collected once a week; however, there are some jurisdictions that are served two days out of the week. Each jurisdiction utilizes various bin systems for the collection of its residential waste. These options include: a one-bin system, two-bin system, and three-bin system; and in rare cases a four-bin system. The types of materials collected in these bins include Municipal Solid Waste (MSW), recycled materials, green materials and manure (in the case of a four-bin system). In the commercial sector, dumpsters are commonly used as storage bins for the collection of commercial waste.

Solid waste collection rates in the County vary from jurisdiction to jurisdiction, while most jurisdictions have a uniform solid waste collection method. A majority of the jurisdictions use an automatic solid waste collection method; however, a few jurisdictions use manual and a combination of manual and automated solid waste collection methods.

After collection, waste is either hauled directly to the landfills or transformation facilities, or indirectly through a transfer station, materials **recovery** facility, or Construction, Demolition, and Inert (CDI) debris recycling facility. The County relies on a unique mixture of publicly and privately-owned and operated facilities to maintain a competitive environment for waste collection and disposal.

In 2018, Los Angeles County disposed a daily average of approximately 33,599 tons of solid waste (excluding inert waste disposal at permitted inert waste landfill) at landfills and transformation facilities located in and out of the County. The 2018 disposal data is based on disposal data from January 1, 2018, through December 31, 2018. The distribution among the various types of facilities is discussed in the following subsections.

Although the Cities and the County continue to implement aggressive waste diversion programs aimed toward meeting or exceeding the AB 939 diversion mandates, population increases, and economic growth will require increased cooperation by the Cities and the County toward providing for the disposal capacity needs of the residents. The Los Angeles County Solid Waste Management Action Plan (see Section 1.9.2), adopted by Los Angeles County in 1998, the City of Los Angeles Board of Public Works, and the County Sanitation Districts of Los Angeles County (which represents 78 Cities), initiated a major planning effort toward 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 the County through various planning strategies.

Additionally, as further discussed in **Chapters 3 ("Existing Solid Waste Disposal Facilities")** and **4 ("Current Disposal Rate and Assessment of Disposal Capacity Needs")** and, 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 **wasteshed** 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.

One of the critical limiting factors is the jurisdictional restriction on waste disposal. Burbank Landfill can only receive solid waste generated within the City of Burbank and Savage Canyon Landfill is limited to receive solid waste from the City of Whittier or waste haulers contracted with the City of Whittier. Calabasas and Scholl Canyon Landfills only accept solid waste generated within their defined wastesheds.

Since 1995, six major (Azusa Land Reclamation Company Landfill, Bradley Landfill, BKK Landfill, Lopez Canyon Landfill, Spadra Landfill, and Puente Hills) and two minor (Brand Park Landfill and Two Harbors Landfill) Class III landfills have closed or ceased accepting solid waste due to capacity limitations or the expiration of land use and/or other operational permits, or for other reasons. Puente Hills Landfill closed on October 31, 2013, after 43 years of continuous disposal operations.

1.5 EXISTING IN-COUNTY DISPOSAL RATE AND DISPOSAL CAPACITY

Existing disposal capacity in the County is provided through Class III landfills, a permitted inert waste landfill, and transformation facilities. A detailed discussion on the current disposal rate and disposal capacity in the County is provided in **Chapter 4 ("Current Disposal Rate and Assessment of Disposal Capacity Needs")**.

Fact sheets for the Class III landfills, permitted inert waste landfill, and transformation facilities are provided in **Chapter 3 ("Existing Solid Waste Disposal Facilities") and Chapter 7 ("Proposed In-County Facility Location and Description")** of the CSE. Information on the inert waste landfill is also provided in **Chapters 3** and **4**.

1.5.1 Class III Landfills

The County currently is a host to two classifications of land disposal facilities, namely Class III landfills and inert waste landfills. The first landfill classification, Class III, is allowed to accept nonhazardous 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 ensures 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 10 to 15 years.

As of December 31, 2018, the remaining permitted Class III landfill capacity in the County is estimated at 163.39 million tons (194.35 million cubic yards), of which the remaining permitted capacities for **Major** and **Minor Landfills** are 156.46 and 6.93 million tons (182.27 and 12.08 million cubic yards), respectively. Based on the 2018 average disposal rate of 34,170 tons per day (tpd)[4] (excluding waste imported to the County), the cumulative need for Class III landfill disposal capacity of approximately 126.4 million tons by year 2033 would not exceed the remaining Class III landfill capacity of 163.39 million tons.

1.5.1.1 Major Class III Landfills

As of December 31, 2018, there are six existing permitted **major Class III landfills** within the County.

- Antelope Valley Recycling and Disposal Facility
- Calabasas Landfill
- Chiquita Canyon Landfill
- Lancaster Landfill and Recycling Center
- Scholl Canyon Landfill
- Sunshine Canyon City/County Landfill

The total average daily disposal rate in 2018 for the six existing permitted major Class III landfills, is approximately 15,605 tpd based on 2018 disposal data. This amount includes waste (approximately an average of 404 tpd) imported from other counties such as Orange, Riverside, San Bernardino, San Diego, and Ventura Counties.

More detailed information on each major Class III landfill facility is provided in **Chapter 3**.

Key Terms

Recovery
Refers to any waste management operation that diverts a material from the waste stream and which results in a product with a potential economic or ecological benefit. Recovery mainly refers to the following: operations 1) reuse; 2) material recovery such as recycling; 3) biological recovery such as composting; and 4) energy recovery such as fuel production..

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

Major Class III Landfill
Refers to a Class III landfill which is permitted to receive 250,000 tons or more of solid waste per year.

Major Landfill
Refers to 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).

Minor Class III Landfill
Refers to a Class III landfill which is permitted to receive less than 250,000 tons of solid waste per year.

1.5.1.2 Minor Class III Landfills

As of December 31, 2018, there are four existing permitted **minor Class III landfills** within the County:

- Burbank Landfill No. 3 (City of Burbank use only)
- Pebbly Beach Disposal Site, Avalon, Santa Catalina Island
- San Clemente Landfill, U.S. Navy Facility, San Clemente Island
- Savage Canyon Landfill (City of Whittier use only)

The total average daily disposal rate in 2018 for the four existing permitted minor Class III landfills is approximately 405 tpd based on 2018 disposal data.

More detailed information on each minor Class III landfill facility is provided in **Chapter 3**.

1.5.2 Inert Waste Landfills

Inert waste landfills include facilities/operations such as inert debris disposal facilities, inert debris engineered fill operations (IDEFOs), and inert debris engineered fill activities.

The combined total average disposal rate of the inert waste landfills in the County is 10,667 tpd as of December 31, 2018. The total remaining permitted disposal capacity for the inert waste landfills in the County as of December 31, 2018 is unknown. However, based on the maximum available daily capacity of the permitted inert waste landfill (see Section 1.5.2.1) and Inert Debris Engineered Fill Operations (see Section 1.5.2.2), there is sufficient daily capacity at inert waste landfills.

Inert waste landfill capacities are not considered in the disposal capacity analysis prepared for the CSE due to the currently adequate (see discussion in Sections 1.5.2.1 and 1.5.2.2) disposal capacity (15-year planning period) for the permitted inert waste landfill, for inert materials within the County, and the increasing trend toward recycling construction and demolition waste.

1.5.2.1 Permitted Inert Waste Landfill

As of December 31, 2018, there is one permitted inert waste landfill in the County:

- Azusa Land Reclamation Landfill (inert waste only portion)

The total average daily disposal rate in 2018 for the permitted inert waste landfill is approximately 1,148 tpd[4] based on 2018 disposal data.

The total remaining permitted disposal capacity for the permitted inert waste landfill in the County is approximately 57.72 million tons (46.17 million cubic yards) as of December 31, 2018. At the current average disposal rate of 1,148 tpd the total remaining **permitted capacity** will be exhausted in about 129 years. This demonstrates that there is currently sufficient daily capacity at inert waste landfills.

More detailed information on the permitted inert waste landfill is provided in **Chapter 3**.

1.5.2.2 Inert Debris Engineered Fill Operations

As of December 31, 2018, there are ten IDEFOs in the County:

- Durbin Landfill
- Hanson Aggregates (Livingston-Graham)
- Manning Pit
- Montebello Land and Water Company
- North Kincaid Pit

4 The total average daily disposal rate of 1,148 tpd for the permitted inert waste landfill includes 213 tpd of inert waste imported from outside Los Angeles County.

- Nu-Way Arrow Reclamation
- Peck Road Gravel Pit
- Reliance Landfill
- Sun Valley Landfill
- United Rock Products

The total average daily disposal rate in 2018 for the IDEFOs is approximately 9,519 tpd, based on 2018 disposal data.

The total remaining disposal capacity of the IDEFOs as of December 31, 2018, is unknown. However, these types of facilities will not be considered in the CSE for disposal capacity planning purposes.

More detailed information on IDEFOs is provided in **Chapter 3**.

1.5.3 Transformation Facilities

As of December 31, 2018, there are two transformation facilities located within the County:

- Commerce Refuse-to-Energy Facility (CREF) (closed as of June 2018)
- Southeast Resource Recovery Facility (SERRF)

The total average daily disposal rate in 2018 for the transformation facilities is approximately 1,335 tpd based on 2018 disposal data. The SERRF processed approximately 1,192 tpd of solid waste including about 141 tpd of solid waste imported from outside the County, while CREF processed approximately 143 tpd which includes about 19 tpd of solid waste imported from other counties (see **Table 4-4**). The residual ash generated from the transformation process is diverted for use in the production of Portland Cement concrete and other uses.

Key Terms

Permitted Capacity
See "Permitted Disposal Capacity."

Permitted Disposal Capacity
Permitted Disposal Capacity Refers to 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 (SWFP) (full or registration tier permit only), Land/Conditional Use Permit (LUP/CUP), Waste Discharge Requirements (WDR), and Permit to Operate issued by the local Air Quality Management/ Air Quality Control District, whichever is more restrictive.

Transformation technology has been identified as an effective alternative to divert solid waste from landfills and remains a valid solid waste disposal alternative for future consideration in the 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 facilities in the 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.

More detailed information on transformation and conversion technology facilities is provided in **Chapters 3**, **5**, and **7**.

1.6 POTENTIAL NEW OR EXPANSIONS OF EXISTING IN-COUNTY CAPACITY

1.6.1 Class III Landfills

1.6.1.1 Potential New Class III Landfills

The previous CSE (dated June 1997) identified two sites (Elsmere and Blind Canyon) located in the unincorporated County for potential development of new Class III landfills. However, on September 30, 2003, the County Board of Supervisors unanimously adopted a motion to remove these sites from the CSE's list of potential new landfills. As a result, this CSE does not identify any site for development of new Class III landfills in the County. Also, no new Class III landfill is expected to be developed in the County in the foreseeable future.

1.6.1.2 Potential Expansion of Existing Class III Landfills

Currently, there is no proposed expansion of existing Class III landfill within this planning period.

1.6.2 Permitted Inert Waste Landfills

1.6.2.1 Potential New Permitted Inert Waste Landfills

No site has been identified for proposed development of new permitted inert waste landfills in the County within this planning period.

1.6.2.2 Potential Expansion of Existing Permitted Inert Waste Landfills

Currently, there is no proposed expansion of the existing permitted inert waste landfill.

1.6.3 Alternative Technology Facilities

1.6.3.1 Potential New Alternative Technology Facilities

Potential host sites for an alternative technology facility were submitted to the County. These sites are discussed in the "Los Angeles County Conversion Technology Project, Preliminary Siting Assessment," submitted to the County Board of Supervisors on October 20, 2010 (See **Chapter 5**, **Appendix 5-A**). In subsequent updates to the County Board of Supervisors, additional sites were added to the list. Potential locations for alternative technology facilities are identified in the CSE. For more detailed information on potential new alternative technology facilities, please refer to **Chapter 7.**

The City of Los Angeles is also evaluating the potential siting of a number of alternative technology facilities capable of processing post-source separated municipal solid waste. The City Council's RENEW LA plan calls for the development of seven alternative technology facilities, six within the City's boundaries and one in the local region. The City of Los Angeles Municipal Code has been amended to allow alternative technology facilities to be sited in the M-2 (light industrial), M-3 (heavy industrial), and PF (public facilities) zones by conditional use.

1.6.3.2 Transformation Facilities

Potential New Transformation Facilities

No site has been identified for potential development of new transformation facilities in the County for this planning period.

Potential Expansion of Existing Transformation Facilities

Currently, there are no proposed expansions of existing transformation facilities in the County; therefore, no such facilities have been identified in the CSE.

1.6.3.3 Conversion Technology

Potential New Conversion Technology Facilities

Currently, there are no existing conversion technology facilities in the County; therefore, no proposed expansions of alternative technology facilities have been identified in the CSE.

1.6.3.4 Engineered Municipal Solid Waste Conversion Facilities

Potential New Engineered Municipal Solid Waste Conversion Facilities

There are no existing or proposed new EMSW conversion facilities in the County; therefore, no EMSW conversion facilities have been identified in the CSE.

1.7 SOLID WASTE IMPORT

In 1995, approximately 2,481 tpd of solid waste disposed in Los Angeles County originated from ten different counties in the State, including as far north as Shasta County and as far south as San Diego County. Of waste imported to Los Angeles County, approximately 905 tpd, 475 tpd, 755 tpd, and 370 tpd were received from San Diego County, Ventura County, Orange County, and San Bernardino County, respectively. Smaller amounts were imported from other counties.

In 2018, approximately 175,737 tons (563 tpd) of imported solid waste was received by Los Angeles County Class III landfills, and transformation facilities, from other counties and states. Of waste imported to Los Angeles County, approximately 181 tpd, 25 tpd, 28 tpd, and 302 tpd were received from Orange County, Riverside County, San Bernardino County, and Ventura County, respectively. Smaller amounts were imported from other counties and states.

1.8 SOLID WASTE EXPORT

In recent years, the exportation of solid waste has become a very important factor 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** add another factor that must be considered in the County's waste management and disposal strategies. In 2012, the State passed Assembly Bill 845, which also prohibits an ordinance enacted by a city or county from otherwise restricting or limiting the importation of solid waste into a privately-owned solid waste facility in that city or county based on place of origin.

The out-of-County exportation of waste (rail, haul, etc.) (see **Chapter 2**, **Goal No. 8**, **Policy No. 8.5** thru **8.10**) is an essential element in the long-term solid waste disposal strategies for the County. Out-of-County disposal, including rail haul, has limitations, and in-County infrastructure necessary for accessing out-of-County disposal capacity are discussed in further detail in **Chapter 9 ("Out-of-County Disposal")**.

In 2018, approximately 5,120,871 tons (16,413 tpd) of solid waste were exported to currently available out-of-County facilities. Over the last decade, on average, approximately 66 percent of the **residual solid waste** generated in Los Angeles County (that is destined for disposal) was disposed in Los Angeles County. The remaining 34 percent was exported for disposal at out-of-County landfills. However, in 2018, approximately 51 percent of the residual solid waste generated in Los Angeles County was disposed in Los Angeles County, and the remaining 49 percent was exported for disposal at out-of-county landfills.

In 2018, the majority of the 49 percent average waste export was to surrounding counties. Orange, Riverside, San Bernardino, and Ventura received 34, 33, 14, and 15 percent, respectively. The remaining four percent of the exports was sent to landfills in Fresno, Kern, Kings, San Diego, San Luis Obispo, and Stanislaus Counties. More detailed information on solid waste export is provided in **Chapter 9**.

1.8.1 Out-of-County Class III Landfills (Located in California) Potentially Available for Out-of-County Disposal

Chapter 9 identifies existing and proposed new out-of-County Class III landfills, located in other California counties. The total combined maximum daily permitted capacity at these landfills is greater than approximately 77,054tpd[5], and the total combined average daily disposal tonnage was approximately 38,752 tpd[6] in 2018. **Table 9-1** provides a list and summary of the existing and potential out-of-County Class III landfills located in California.

5 The total combined permitted daily disposal rate is based only on landfill data in Chapter 9, Table 9-1 of this CSE.
6 The permitted average daily capacity is based only on landfill data in Chapter 9, Table 9-1 of this CSE.

1.9 PREVIOUS 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. In recent years, solid waste management has become an increasingly difficult task with the implementation of progressively more stringent regulations for landfills, transformation facilities, and other solid waste management facilities' development and operations; public resistance to the siting of many types of solid waste facilities including alternative technology facilities (e.g. conversion technology, transformation); 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 previous planning/implementing activities are discussed below.

1.9.1 County Solid Waste Management Plan

Solid waste planning activities in the County were previously governed by the Los Angeles County Solid Waste Management Plan (CoSWMP) Triennial Review, Vol. 1: Non-hazardous Waste (March 1984) and Revision A (August 1985). Among the many strategies identified in the CoSWMP for the management of solid waste is to develop a number of in-County transformation facilities to handle 40 percent of the solid waste generated in the County. The CoSWMP which received approval by the majority of the cities in the County containing a majority of the incorporated population and the County Board of Supervisors, was approved by the former California Waste Management Board (now CalRecycle) in March 1986. The CoSWMP was prepared pursuant to the requirements of the California Solid Waste Management and Resource Recovery Act of 1972; initially adopted by the County Board of Supervisors in June 1976; and approved by the California Waste Management Board (now CalRecycle) in December 1977.

As required by the California Solid Waste Management and Resource Recovery Act of 1972, the CoSWMP provided for solid waste disposal management on a Countywide basis. As required by AB 939, the CoSWMP was superseded by the Countywide Integrated Waste Management Plan (CoIWMP) upon its preparation and approval by the cities in the County, the County Board of Supervisors, and CalRecycle. The CoIWMP (See Section 1.10.1) is an integrated solid waste management planning document incorporating the CSE and Summary Plan, and the cities' and the County's SRRE, Household Hazardous Waste Elements (HHWEs), and Nondisposal Facility Elements (NDFEs).

1.9.2 Los Angeles County Solid Waste Management Action Plan

In the mid-1980s, the 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 transformation facilities caused by 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 Preliminary Alternate Site Study (January 1988); and the Report on the Solid Waste Management Status and Disposal Options in Los Angeles County (February 1988).

Key Terms

Flow Controls
Refer to legal provisions that allow state and local governments to designate the places where municipal solid waste (MSW) is taken for processing, treatment, or disposal. Flow controls may take the form of a "wasteshed" restriction, limits on the amount of waste from individual jurisdictions, host fees, and/or outright bans on the importation of solid waste.

Residual Solid Waste
Refers to the post-recycled content or remaining solid waste after municipal solid waste (MSW) has gone through the recycling, source reduction, and reuse method.

These planning documents 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 CSD Board of Directors (representing 76 Cities in the County, in May 1988), and the City of Los Angeles Board of Public Works.

1.9.2.1 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 Public Works in cooperation with the CSD. 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, transformation facilities, and landfills. The Siting Project also included 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 was updated and incorporated into the CSE, see **Chapter 6 ("Facility Siting Criteria")**. The criteria served as a basis for the selection of potential sites which would be found suitable for development of land disposal, transformation facilities, alternative technology facilities, etc.

1.9.2.2 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 CSD, the City of Los Angeles Public Works – Bureau of Sanitation, and the Los Angeles County 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 CSD 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 the land and included projections of future solid waste quantities for use in waste management planning. The information contained in the report was updated and incorporated in **Chapter 3 ("Existing Solid Waste Disposal Facilities")**, **Chapter 4 ("Current Disposal Rate and Assessment of Disposal Capacity Needs")**, and **Chapter 7 ("Proposed In-County Facility Locations and Descriptions")** of the CSE.

1.9.2.3 Preliminary Alternate Site Study

In response to a directive by the County Board of Supervisors to identify the best sites for potential development of land disposal facilities in the County, the staffs of the County Public Works and the CSD 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 the 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.

Key Terms

Solid Waste Disposal Capacity
Refers to 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 a jurisdiction over a specified period of time.

1.9.2.4 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 CSD Board of Directors which represents 76 cities.

The Action Plan was 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 County Public Works to implement those programs that are applicable on a countywide basis. The Action Plan provided 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 they are 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, the County Chief Administrative Officer, and the Chief Engineer and General Manager of the CSD 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, County Public Works had developed and implemented the following programs:

- Countywide Household Hazardous Waste Management Program which provides a mechanism for residents throughout the 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 the County.
- Countywide Backyard Composting Program where the County residents are provided and trained on various backyard composting techniques.

As set forth in the Action Plan, County Public Works and the CSD 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 were 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 EIR was prepared by the CSD and distributed for public comments. Based on the results of comments received at public information meetings and from interested groups, a final program EIR 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 (CUP) 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 project proponent, decided to no longer consider the use of the areas within the Angeles National Forest. In 2010, the remaining site was acquired by the City of Santa Clarita. This land, combined with previously preserved land by the Mountains Recreation and Conservation Authority, was dedicated as permanent open space and for Public Park and recreational uses.

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 County Board of Supervisors.

1.10 ONGOING EXISTING PLANNING ACTIVITIES

1.10.1 Countywide Integrated Waste Management Plan

Besides mandating the waste diversion goals of 25 percent by 1995 and 50 percent by 2000, AB 939 established an integrated system of solid waste management in the State, with a hierarchy[7] 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 County CoIWMP consists of the following:

- An 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;
- An HHWE, prepared by each City within the County and the unincorporated County area, which describes the programs and strategies a jurisdiction will implement to reduce the amount of household hazardous waste in the waste stream;
- An 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, and a summary of the existing, planned, and contingency source reduction, recycling, and composting programs identified by the jurisdictions in the 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 CalRecycle in June 1999, the County's CoIWMP superseded the CoSWMP and currently governs the solid waste planning activities in the County.

1.10.2 Board Motion, Synopsis 5, September 30, 2003

On September 30, 2003, the County Board of Supervisors unanimously adopted a motion to remove the Elsmere Canyon Landfill and Blind Canyon Landfill sites from the CSE's list of potential new landfills. Additionally, Browning-Ferris Industries (BFI), the owner of the Elsmere Canyon Landfill site, sent letters to Public Works (February 10, 2004) and the Los Angeles County Department of Regional Planning (May 5, 2004) withdrawing their application for a CUP to develop a landfill at the site. Removal of these two sites also necessitated an amendment of the CSE and required that the goals and policies of the CSE be re-evaluated to ensure their continued applicability and efficacy. The CSE goals and policies have been re-evaluated and updated in this CSE.

7 This CSE proposes a new solid waste management paradigm with a modified hierarchy of solid waste management practices. See Figure 1-1.

1.10.3 Five-Year Review of the Los Angeles County Countywide Integrated Waste Management Plan

PRC Section 41822 requires each city, county, or regional agency to review its SRRE or the CoIWMP at least once every five years to correct any deficiencies in the plan, to comply with the source reduction and recycling requirements established under PRC Section 41780, and revise the document as necessary.

The purpose of the Five-Year Review Report of the CoIWMP is to assure that the County's waste management practices remain consistent with the State's waste management hierarchy (PRC Section 40051). CCR, Title 14, Section 18788 also identifies the issues which must be addressed in the CoIWMP's Five-Year Review Report.

The County, with the assistance of the Task Force, conducted a five-year review of the CoIWMP. The resulting Five-Year Review Report, dated June 2004, summarized the County's findings and recommendations.

Based on the findings of the Five-Year Review Report, the CSE must be revised for the following reasons:

- To update the goals, policies, and objectives of the CSE to further assist local jurisdictions in the County to meet AB 939 waste diversion goals and to reflect new solid waste management policies, funding sources, and administrative changes.
- To remove Elsmere Canyon Landfill and Blind Canyon Landfill from the CSE's list of potential new landfills to comply with the County Board of Supervisors' unanimous motion, Synopsis 5, of September 30, 2003, directing Public Works to remove the sites from the CSE.
- To address the issues related to the implementation of the C & D/Inert Debris Regulations, Phase II, which may result in some previously "unpermitted" facilities (i.e., facilities that were not previously required to obtain a SWFP) being required to obtain either a Registration Permit or Full SWFP and, therefore, required to be listed in the CSE; or previously "permitted" facilities being reclassified as IDEFO or excluded operations and, therefore, not required to be listed in the CSE.
- To revise the CSE's discussion on alternative disposal technology to address the specific permitting needs for conversion technology facilities, potential location for these facilities, and current status of development of these technologies.

The two subsequent Five-Year Review Reports were submitted to CalRecycle in April 2010 and September 2014.

1.10.4 Countywide Siting Element Revision Process

After approval of the first Five-Year Review Report on September 21, 2004, Public Works commenced revision of the CSE with guidance from the Task Force and its Facility and Plan Review Subcommittee. Upon completion of the revision process, the revised CSE and its environmental impact document will undergo a review and approval process in compliance with numerous statutory and regulatory requirements. This includes review and approval by cities, the County Board of Supervisors, and CalRecycle.

The CSE has been revised in accordance with the regulations governing the procedures for preparing and revising the CSE as contained in CCR, Title 14, Division 7, Chapter 9, Article 8, Sections 18776 through 18788 ("Procedures for Preparing and Revising Siting Elements, Summary Plans, and Countywide and Regional Integrated Waste Management Plans"); CCR Title 14, Division 7, Chapter 9, Article 6.5 ("Siting Elements"), Sections 18755 through 18756.7; and CCR Title 14, Division 7, Chapter 9, Article 6.6 ("Countywide and Regional Agency Integrated Waste Management Plans"), Sections 18757 through 18758.

1.11 ROLE OF LOS ANGELES COUNTY SOLID WASTE MANAGEMENT COMMITTEE/ INTEGRATED WASTE MANAGEMENT TASK FORCE

1.11.1 Former Los Angeles County Solid Waste Management Committee

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

The CoSWMC consisted of 17 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 consisted of: the Director of Los Angeles County Public Works; the Director of the County Department of Health Services; the Chief Engineer and General Manager of the CSD; 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 County Board of Supervisors. The CoSWMC, among other things, reviewed proposed facilities and services for conformance with the CoSWMP; and monitored, analyzed, reviewed, and proposed legislation as needed.

The role of the CoSWMC was expanded as a result of AB 939, which mandated that each county convene a task force to assist in coordinating the development of City and County SRREs, HHWEs, and 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 the County for the designation of the CoSWMC as the Task Force as required by PRC Section 40950.

1.11.2 Current Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force

Pursuant to PRC Section 40000, et seq., on July 15, 1990, (after obtaining the required approval from the majority of the cities in the County containing a majority of the County incorporated population), the County Board of Supervisors approved and adopted Ordinance No. 90-0096, amending Chapter 3.67, Title 3 of the County Code, designating the previous CoSWMC as the current Task Force. The Director of Public Works is designated as the Task Force Chairperson.

The Task Force addresses the many growing and multi-faceted issues surrounding solid waste management in the County and is comprised of representatives of stakeholders in solid waste management issues from all corners of the County, including the County, the City of Los Angeles, the City of Long Beach, the CSD, South Coast Air Quality Management District, the League of California Cities, Greater Los Angeles Solid Waste Management Association, the Institute of Scrap Recycling Industries, the general public, the business sector, and environmental organizations. The Task Force strives to take an integrated approach to addressing waste management issues while balancing the concerns of local waste management and recycling industries, municipalities, and the citizens of all 88 cities and unincorporated communities within the County.

Key Terms

CSE
Refers to a planning document required by the California Integrated Waste Management Act of 1989 (AB 939), as amended (Section 40000 et seq. of the PRC) which provides a description of the areas to be used for development of adequate transformation or disposal capacity concurrent and consistent with the development and implementation of the county and city source reduction and recycling elements pursuant to Section 41700 of the PRC.

Summary Plan
Refers to 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 AB 939 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.

Conversion Technologies
Refers to a wide array of technologies capable of converting post-recycled or residual solid waste into useful products, green fuels, and renewable energy through non-combustion thermal, chemical, or biological processes. Conversion technologies may include mechanical processes when combined with a non-combustion thermal, chemical, or biological conversion process.

The Task Force's responsibilities include: coordinating waste management issues on a Countywide basis; determining the need for solid waste disposal, transfer, and processing facilities; and facilitating the development of multi-jurisdictional marketing arrangements for diverted materials.

The Task Force guides the 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.

The Task Force's responsibilities also include reviewing each City's SRRE and NDFE, and all Findings of Conformance (FOC)[8] with the CoIWMP for all solid waste facilities that wish to operate within the County.

The Task Force consists of the following three subcommittees:

- **Facility and Plan Review Subcommittee (FPRS)** - advises the Task Force in reviewing and commenting on: (1) the SRREs, HHWEs, and NDFEs prepared by the 88 cities in the County and the County unincorporated areas; and (2) the **CSE** and **Summary Plan** prepared by the County pursuant to AB 939, as amended. The FPRS's responsibilities also include advising the Task Force in reviewing solid waste disposal facility requests for an FOC with the CSE and on compliance of facilities with the CSE and Summary Plan.
- **Public Education and Information Subcommittee (PEIS)** - is responsible for publishing the "Inside Solid Waste" quarterly newsletter, which communicates the important waste management issues of the Task Force and serves as a forum for news about interesting happenings in waste management and waste reduction in the County. Representatives from cities and public agencies attend the PEIS.
- **Alternative Technology Advisory Subcommittee (ATAS)** - is responsible for evaluating and promoting the development of **conversion technologies** to reduce dependence on landfills and incinerators.

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

8 An FOC is issued to all Solid Waste Facilities that began operation or modified their operation since the adoption of the CoIWMP if the Task Force determines that these facilities are consistent with the CSE.

Table 1-2: Task Force Role and Responsibilities

A. General Role/Responsibilities

1. Assist in coordinating the development of cities/County Source Reduction and Recycling Elements (SRREs), Household Hazardous Waste Elements (HHWEs), and Non Disposal Facility Elements (NDFEs).

2. Assist and advise the agency responsible for preparation of the Los Angeles County Countywide Siting Element (CSE) and the Countywide Integrated Waste Management Plan (CoIWMP) and its Summary Plan.

3. Five-year review of the CoIWMP by Task Force
   Prior to the fifth anniversary of CalRecycle's approval of the CoIWMP or its more recent revision, the Task Force shall review the CoIWMP in accordance with provisions of PRC Sections 40051, 40052, and 41822, to ensure that it remains consistent with the hierarchy of waste management practices defined in PRC Section 40051.
   a) On or before the fifth anniversary of CalRecycle'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 CalRecycle.
   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 CalRecycle in writing of its findings.
   c) CalRecycle 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, CalRecycle 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, CalRecycle shall send a copy of its resolution, approving or disapproving the County's findings, to the Task Force and the County. If CalRecycle has identified additional areas of the CoIWMP that require revision, CalRecycle shall identify those areas in its resolution.

B. SRRE, HHWE, and NDFE Responsibilities

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 PRC Section 41780.

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.

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.

4. To ensure a coordinated and cost-effective regional recycling system, the Task Force shall:
   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.

5. Review preliminary drafts of SRREs, HHWEs, and NDFEs.
   a) Take into consideration the issues of Countywide or regional concerns as required by 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 CalRecycle 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 CalRecycle) shall review and send their written comments to the jurisdiction that prepared the preliminary draft SRRE, HHWE, and NDFE. A copy of CalRecycle's written comments shall be sent simultaneously to the Task Force.

B. SRRE, HHWE, and NDFE Responsibilities (Continued)

6. Review preliminary drafts of SRREs, HHWEs, and NDFEs.
   a) The Task Force shall provide written comments on the final draft to CalRecycle 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 CalRecycle indicating the remaining deficiencies of the SRRE and HHWE.

C. CSE and CoIWMP and its Summary Plan Responsibilities

1. The Task Force, within 30 days of its establishment, and, as required by CCR, Title 14, Section 18777, shall determine and verify the remaining permitted combined disposal capacity of existing solid waste facilities in the County.

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 CalRecycle, to guide the development of the CSE of the CoIWMP.

3. To ensure that Los Angeles County 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 CalRecycle.

4. Review the preliminary draft of the CSE, the CoIWMP and its Summary Plan.

5. Send written comments simultaneously to CalRecycle 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.

6. Review the preliminary draft of the CSE, the CoIWMP and its Summary Plan.
   a) Send written comments simultaneously to the agency responsible for preparation of the CSE, and the CoIWMP and its Summary Plan and CalRecycle 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 CalRecycle 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 CalRecycle, in writing, within 30 days of its determination.

D. Consistency with the Countywide Solid Waste Management Plan and CoIWMP

To ensure 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.

1.12 ROLE OF LOS ANGELES COUNTY PUBLIC WORKS

Public Works is the lead County agency advising the County Board of Supervisors on all solid waste management issues. As such, Public Works' responsibilities include preparing and administering the County unincorporated area SRRE, HHWE, and NDFE; the Countywide Household Hazardous Waste Management Program; the Countywide Public Education/Awareness Program; the Countywide Backyard Composting Program; and other programs previously approved by the Action Plan. Public Works is also the responsible agency for preparing and administering the CSE, and the CoIWMP with its associated Summary Plan.

Public Works also acts as the staff to the Task Force. The duties of Public Works in this capacity include: oversight of the CoIWMP; 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.

2

Goals and Policies

Protect Human Health and the Environment

2.0 GOALS AND POLICIES

2.1 PURPOSE

This Chapter presents goals and policies which have been developed to provide a framework to address the disposal capacity need of the 88 cities in Los Angeles County and the County unincorporated communities during the 15-year planning period (2018-2033). The goals and policies are consistent with the requirements of California Public Resources Code (PRC) Sections 40050 et seq.

This Chapter also:

(1) provides an implementation schedule (see **Section 2.5**) that identifies and describes

(a) tasks necessary to achieve each selected goal and policy, and

(b) agencies/organizations responsible for implementing these goals and policies;

(2) identifies the responsible agencies for the administration of the Countywide Siting Element (CSE); and

(3) identifies the required funding source.

The specific requirements for the content of this Chapter are drawn from California Code of Regulations (CCR), Title 14, Division 7, Chapter 9, Article 6.5, Sections 18755.1 and 18756.7, and are discussed in Section 2.3 of this Chapter.

2.2 DEFINITIONS

Definitions of key terms used in this Chapter are included when referenced. For a more complete listing of acronyms and definitions, please refer to the List of Acronyms and Glossary of Terms at the beginning and end of this document, respectively.

2.3 SPECIFIC REQUIREMENTS

CCR, Title 14, Section 18755.1 (a), (c), and (d) 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 Siting Element shall include a statement on the goals and policies established by the county.

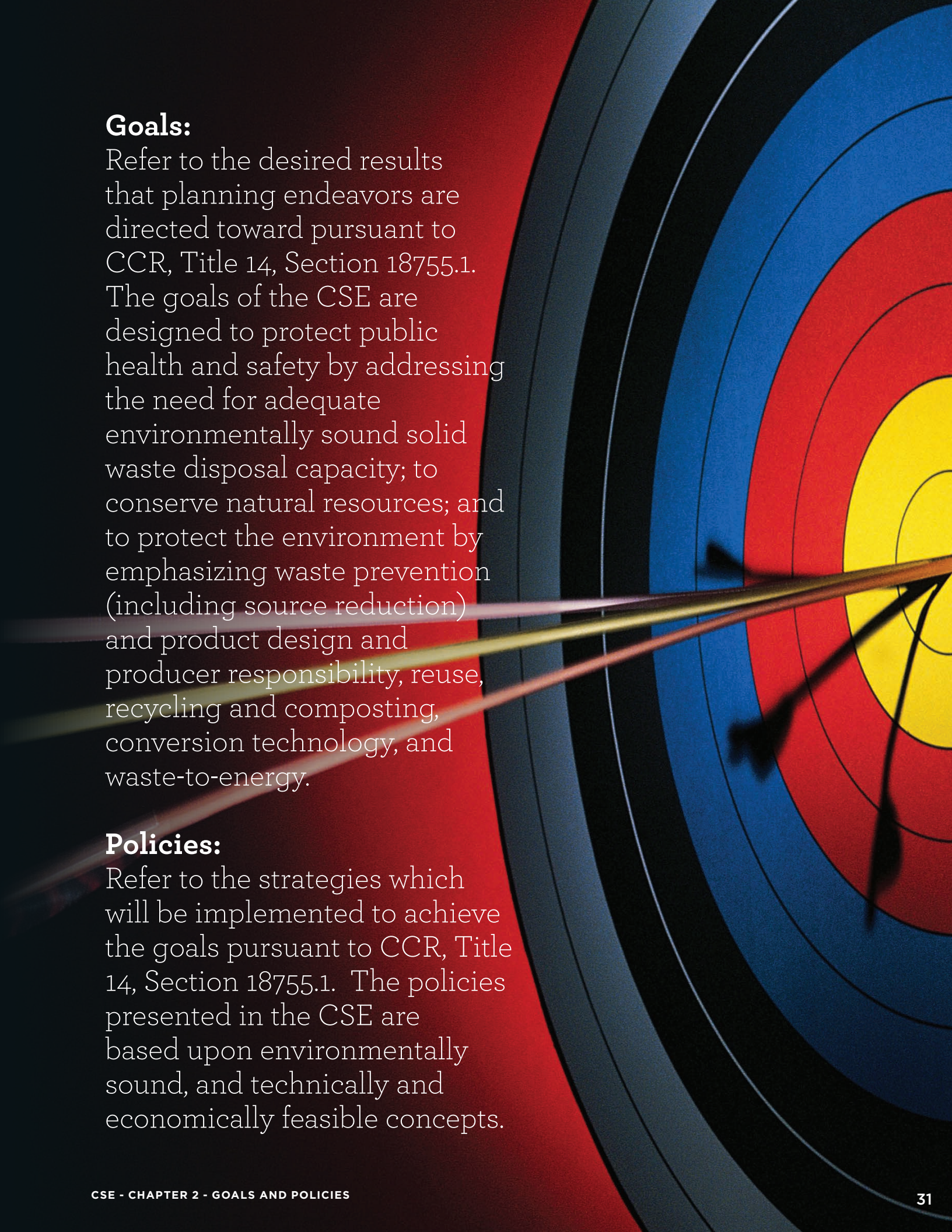
b) The goals shall be consistent with the mandates of Section 40051 of the Public Resources Code (PRC). The goals shall describe the method for the environmentally safe disposal of solid waste generated within the boundaries of the county and regional agency.

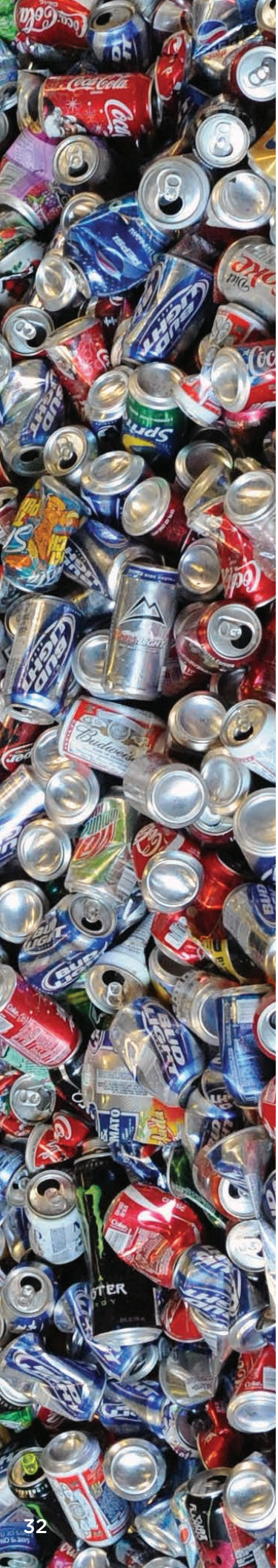
c) The policies shall specify any programs, regulatory ordinances, actions, or strategies that may be established to meet the goals described in subdivision (c) of this section and to assist in the siting of solid waste disposal facilities. An implementation schedule shall be included which identifies tasks necessary to achieve each selected goal.

d) Also, CCR, Title 14, Section 18756.7, requires that the CSE include identification of local governments, Local Task Forces, regional agencies, and other organizations responsible for implementing the solid waste disposal facility siting program. Additionally, the CSE 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 countywide solid waste disposal facility and siting program.

Goals:
Refer to the desired results that planning endeavors are directed toward pursuant to CCR, Title 14, Section 18755.1. The goals of the CSE 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 waste prevention (including source reduction) and product design and producer responsibility, reuse, recycling and composting, conversion technology, and waste-to-energy.

Policies:
Refer to the strategies which will be implemented to achieve the goals pursuant to CCR, Title 14, Section 18755.1. The policies presented in the CSE 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 County and cities in Los Angeles County to meet the mandates of the California Integrated Waste Management Act of 1989, Assembly Bill 939 (AB 939), as amended (Section 40000 et seq. of PRC). These goals are consistent with those listed in the Los Angeles County Solid Waste Management Action Plan (Action Plan)[1] and County Solid Waste Management Plan (CoSWMP)[2].

2.4.1 GOAL NO. 1

To continue to promote extended producer responsibility, development of adequate markets to increase the use of recycled materials and compost products in an environmentally responsible manner.

Policy No. 1.1

The cities in Los Angeles County, the County, and Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force (Task Force) will continue to coordinate efforts and work with the State to establish new and/or expand 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.

Policy No. 1.2

The County, in conjunction with the County Sanitation Districts of Los Angeles County (CSD), and all participating cities, will continue to expand the Countywide Household Hazardous Waste Management Program, to address the proper management of electronic waste, universal waste, sharps waste, and pharmaceutical waste; and support the development of permanent Environmental Collection Centers for residents to drop off these wastes to complement the existing network of permanent collection centers operated by the County and City of Los Angeles.

Policy No. 1.3

The cities in Los Angeles County, the County, and Task Force will encourage, where appropriate, businesses using alternative technologies to participate in the Recycling Market Development Zone Program or other programs that may become available.

Policy No. 1.4

The cities in Los Angeles County, the County, and Task Force will continue to promote the purchase and use of recycled content and recyclable materials over virgin materials and to recycle, to the maximum extent feasible, materials generated by local government and public agencies within the County while supporting environmental responsibility for materials recycled outside of Los Angeles County.

Policy No. 1.5

The cities in Los Angeles County, the County, and the Task Force will encourage the State to promote the development of markets for recycled materials, to the greatest extent feasible, and to promote extended producer responsibility for products sold in California.

1 The Action Plan was adopted by the County Board of Supervisors in April 1988, and was subsequently superseded by the County Integrated Waste Management Plan, which was approved by the former California Integrated Waste Management Board (CIWMB) (now California Department of Resources Recycling and Recovery (CalRecycle)) in June 1999.

2 The CoSWMP was approved by the majority of the cities in the County with majority of the incorporated population, the County Board of Supervisors, and the former CIWMB (now CalRecycle).

2.4.2 GOAL NO. 2

To decrease the volume and tonnage of solid waste being disposed of at landfills by continuing to implement and expand source reduction, recycling, reuse, composting, and public education programs as well as promoting the development of alternative technologies which complement recycling efforts.

Policy No. 2.1

The cities in Los Angeles County, and the County, will continue to implement and expand commercial, residential, and governmental recycling, composting, public outreach, and other equivalent programs such as alternative technologies in their jurisdictions, to the greatest extent feasible.

Policy No. 2.2

The County will continue to enhance its coordination with the cities in Los Angeles County to implement, maintain, and expand cities' and Countywide solid waste management programs and promote the development of alternative technologies which complements recycling efforts.

Policy No. 2.3

The County will continue to enhance its coordination with the cities of Los Angeles County, and the private sector to implement and expand cities' and Countywide public education programs addressing all aspects of an integrated solid waste management system.

Policy No. 2.4

The cities in Los Angeles County, the County, and the Task Force will evaluate efforts to expand resources available for implementing and sustaining existing cities' and Countywide waste diversion programs and expand programs as appropriate.

2.4.3 GOAL NO. 3

To promote, encourage, and expand waste diversion activities by solid waste facility operators.

Policy No. 3.1

The cities in Los Angeles County, the County, and the Task Force, as part of their permit and Finding of Conformance process, will encourage all solid waste facility operators within their jurisdictions to promote and help develop facilities that divert materials from disposal and institute waste salvage/diversion processes 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, composted, or otherwise converted to beneficial use.

Policy No. 3.2

The cities in Los Angeles County, the County, the Task Force, and Local Enforcement Agencies as part of their permit and Finding of Conformance process, will coordinate with solid waste 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 State and local waste diversion requirements.

2.4.4 GOAL NO. 4

To conserve Class III landfill capacity through recycling and reuse of inert waste, disposal of inert waste at inert waste landfills, increased waste disposal compaction rates, recycling of organic materials from the waste stream, and the use of appropriate materials, such as tarps, for landfill daily cover, provided the use of such materials protects the health, welfare, and safety of the citizens in Los Angeles County, as well as the environment.

Policy No. 4.1

The cities in Los Angeles County, and the County, as a part of the building, demolition, grading, and construction permit process and through their various construction and demolition debris recycling and reuse ordinances and programs, will encourage and/or require, when appropriate, diversion of inert waste from Class III landfills to the maximum extent environmentally and economically feasible.

Policy No. 4.2

The cities in Los Angeles County, the County, the Task Force, and Local Enforcement Agencies, as part of their permit and Finding of Conformance process, will encourage solid waste facility operators to maximize available capacity by requiring, when appropriate, Class III landfill operators to increase the density of disposed materials and implement measures to minimize disposal of inert and organic waste at their facility.

Policy No. 4.3

The Cities in Los Angeles County, the County, the Task Force, and the CSD will collaborate, coordinate, share resources, and encourage inter-jurisdictional cooperation in developing a countywide organics management plan to determine the capacity of existing organics processing facilities, the capacity of planned processing facilities, and if this capacity is sufficient to meet the organic waste generation and diversion/recycling demands over a 15-year period.

Policy No. 4.4

The cities in Los Angeles County, the County, the Task Force, and Local Enforcement Agencies, prior to the issuance of their Land Use Permit (LUP) and Finding of Conformance or similar process, encourage Class III landfill operators to analyze the feasibility of using the **balefilling**, refuse derived fuel, or other similar space-saving processes, when appropriate, if they result in landfill space savings and are economically feasible.

Policy No. 4.5

The cities in Los Angeles County, the County, and the Task Force, as part of their LUP and Finding of Conformance or similar process, will encourage Class III landfill operators to use appropriate materials, such as tarps, for landfill daily cover, in order to conserve landfill capacity.

Key Terms

Balefill
Refers to a landfill that uses compacted bales of solid waste to form discrete lifts as the landfill is filled.

Baling
Defined in CCR, Title 14, Section 17225.6 as "the process of compressing and binding solid wastes."

2.4.5 GOAL NO. 5

To protect the health, welfare, safety, and 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 management system.

Policy No. 5.1

The Cities in Los Angeles County, the County, the Task Force, and the CSD will collaborate, coordinate, share resources, and encourage inter-jurisdictional cooperation in developing a regional operational area mass debris management plan to establish roles and responsibilities; determine resources; assess operational threats and vulnerabilities; establish mechanisms for collaboration; prioritize debris management efforts; encourage public entities to minimize the disposal of debris generated to the maximum extent feasible; and promote an efficient way to manage debris disposal within the Los Angeles County region in the event of a mass debris generating disaster.

Policy No. 5.2

The cities in Los Angeles County, the County, the Task Force, and the CSD will share resources, and promote and encourage inter-jurisdictional cooperation on solid waste issues so that Los Angeles County is served by an efficient and economical solid waste management system.

Policy No. 5.3

The cities in Los Angeles County, the County, the Task Force, and the CSD will cooperate and share resources to increase Los Angeles County's influence at State and Federal levels by collaboratively developing common positions on proposed or pending legislation and regulations regarding solid waste management issues, as well as advocating or working to introduce legislation when appropriate.

Policy No. 5.4

The cities in Los Angeles County, the County, and the Task Force will encourage both public and private sector participation in finding and implementing solutions to meet countywide solid waste management challenges.

Policy No. 5.5

The cities in Los Angeles County, and the County, will continue to work toward enhancing the existing public/private solid waste management system including partnerships in order to maintain reasonable costs through competitive market forces and appropriate incentives for diverting solid waste for beneficial reuse.

Policy No. 5.6

The cities in Los Angeles County, the County, the Task Force, and CSD will promote and encourage inter-jurisdiction cooperation in the use of the Mesquite Regional Landfill waste-by-rail system to serve the waste disposal needs of Los Angeles County residences and businesses as part of an efficient and economical solid waste management system.

2.4.6 GOAL NO. 6

To foster the development of alternative technologies as alternatives to landfill disposal.

Policy No. 6.1

The cities in Los Angeles County, the County, the CSD, and the Task Force will support and coordinate the development of alternative technologies and other innovative waste management technologies which would reduce dependence on landfills while providing for the solid waste management needs of Los Angeles County residents at a reasonable cost, and convert residual solid waste into useful products, including renewable and environmentally benign fuels, chemicals, and other sources of clean energy.

Policy No. 6.2

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 **alternative technology** facilities by providing economic incentives as well as recognizing alternative technology as a diversion activity for post-diverted (or post-recycled) residual solid waste managed through these technologies.

Policy No. 6. 3

The cities in Los Angeles County, the County, the Task Force, and the CSD will encourage private sector development of alternative technologies by assisting the private sector in locating appropriate site(s) and providing information on available government funds.

Policy No. 6.4

The Task Force will support and promote awareness of alternative technologies by providing information on alternative technologies to any requesting entity.

Policy No. 6.5

The cities in Los Angeles County, the County, and the Task Force will, when appropriate, work cooperatively to coordinate permitting necessary for the development of alternative technology facilities which utilize alternative technologies, provided they are found to be environmentally sound and technically feasible.

Policy No. 6.6

The cities in Los Angeles County, the County, and the Task Force, prior to the issuance of their LUP and Finding of Conformance or similar process, will encourage solid waste management facility operators, through the LUP process, to develop alternative technology facilities onsite or send post-materials recovery facility feedstock to facilities that process and convert municipal solid waste into renewable energy, biofuels, and/or other beneficial products.

Key Terms

Alternative Technology
Refers to a technology, such as conversion technology, transformation, EMSW conversion or other emerging technologies, capable of processing solid waste, in lieu of landfill disposal.

2.4.7 GOAL NO. 7

To provide siting criteria that considers and provides for the environmentally sound and technically feasible development of solid waste management facilities, including alternative technology facilities (e.g., conversion technology, transformation) and landfills.

Policy No. 7.1

The cities in Los Angeles County, the County, and the Task Force will support and promote legislation and regulation which would provide uniform, minimum, and feasible standards for State agencies to establish environmental and regulatory requirements for all solid waste management facilities.

Policy No. 7.2

The cities in Los Angeles County, and the County, will continue to encourage the coordination of solid waste management efforts through the Task Force so that information may be shared on a countywide basis and duplication of effort can be avoided.

Policy No. 7.3

The cities in Los Angeles County, the County, and the Task Force will collaborate to ensure maximum public participation in land use permitting decisions pertaining to the development of solid waste management facilities, including: addressing any environmental justice concerns.

Policy No. 7.4

The Task Force will ensure that all expansions of existing disposal facilities, as appropriate, conform to the siting criteria developed and contained in the CSE, through the Finding of Conformance process. The Task Force will also require a revised Finding of Conformance whenever an applicable/appropriate existing disposal facility requires a revised/modified Solid Waste Facility Permit, or other permits as appropriate.

Policy No. 7.5

The cities in Los Angeles County, and the County, through their respective Local Enforcement Agencies, will work toward achieving compliance with all Federal, State, and local environmental regulations at all existing solid waste management facilities.

Policy No. 7.6

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 solid waste management facilities.

Policy No. 7.7

The cities in Los Angeles County, and the County, through their respective Local Planning Agencies, shall consider incorporating the Finding of Conformance as one of the conditions of their respective LUP or Conditional Use Permit (CUP) for applicable solid waste management facilities' projects located within their jurisdiction.

Policy No. 7.8

The cities in Los Angeles County, and the County, through their respective planning agencies shall consider the Finding of Conformance requirements as part of their jurisdiction's General Plan requirements for applicable solid waste management facility projects located within their jurisdiction.

2.4.8 GOAL NO. 8

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

Policies to Enhance In-County Landfill Disposal Capacity

Policy No. 8.1

The cities in Los Angeles County, the County, and the Task Force will encourage and assist the development, to the maximum extent feasible, of in-County disposal capacity available for expansion within the boundaries of a landfill, provided it is technically feasible and environmentally sound. The jurisdiction where a specific facility is located will make the final determination as to the use of this capacity.

Policy No. 8.2

The cities in Los Angeles County, the County, and the Task Force will, when appropriate, facilitate any permitting necessary for the development of in-County solid waste management facility expansions, provided it is found to be environmentally sound and technically feasible.

Policy No. 8.3

The cities in Los Angeles County, and the County, will promote land use policies to discourage incompatible land uses between closed, existing, expansion of existing, and new solid waste management facilities identified in the CSE and adjacent areas.

Policies to Facilitate Utilization of Remote and/or Out-of-County Disposal Facilities

Policy No. 8.4

The cities in Los Angeles County, the County, and the Task Force will support policies which would facilitate the use of remote and/or out-of-County disposal facilities as a supplement to in-County disposal capacities.

Policy No. 8.5

The cities in Los Angeles County, the County, the Task Force, and CSD will actively seek and identify out-of-County disposal opportunities as a supplement to in-County disposal capacities to ensure they meet the disposal needs of the 88 cities and the unincorporated County communities.

Policy No. 8.6

The cities in Los Angeles County, the County, the Task Force, and the CSD will support and coordinate the use and development of Mesquite Regional Landfill and other out-of-County/remote disposal facility projects as a supplement to in-County disposal capacities, provided they are environmentally sound and technically feasible.

Policy No. 8.7

The cities in Los Angeles County, the County, the Task Force, and the CSD will support and coordinate the development of infrastructure necessary for solid waste transfer and rail loading to remote and/or out-of-County disposal facilities, provided they are environmentally sound and technically feasible.

Policy No. 8.8

The cities in Los Angeles County, the County, the Task Force, and the CSD will promote and/or sponsor legislation to streamline the permit process in order to facilitate the development of a waste-by-rail system, provided it is environmentally sound and technically feasible.

Policy No. 8.9

The cities in Los Angeles County, the County, the Task Force, and the CSD will, when appropriate, facilitate coordination and any permitting necessary for the development of proposed solid waste management facilities with rail-loading capability which are necessary to provide access to remote and/or out-of-County disposal sites, provided these facilities are environmentally sound and technically feasible.

2.5 COUNTYWIDE SITING ELEMENT IMPLEMENTATION SCHEDULE

Pursuant to CCR, Title 14, Sections 18755.1 and 18756.7, the implementation schedule for tasks identified in the CSE is provided in **Table 2-1** (Countywide Siting Element Task Implementation Responsibilities). 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 activities to be implemented. Moving to the right, the next five columns indicate 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:

- **Lead Entity (LE)**: The entity or entities with primary responsibility for successful implementation of the activity.
- **Support Entity (SE)**: The entity or entities providing resources to assist the lead entity or entities implementing an activity.
- **Advisory Entity (AE)**: The entity or entities serving in an advisory or consultative capacity.

TABLE 2-1: Countywide Siting Element Task Implementation Responsibilities for Year 2018-2033

Summary* of the Goals and Corresponding Policies.

KEY

Responsible Entity: ***The major entity responsible for the activity listed.***

- **L** Lead Entity: Primary responsibility for successful implementation of the activity.
- **S** Support Entity: Providing resources to assist the lead entity or entities.
- **A** Advisory Entity: Serving in an advisory or consultative capacity.

GOAL NO. 1

To continue to promote extended producer responsibility, development of adequate markets to increase the use of recycled materials and compost products in an environmentally responsible manner.

	Los Angeles County Solid Waste Mgmt Committee/ Integrated Waste Mgmt Task Force	Los Angeles County Government	Incorporated Cities	County Sanitation Districts	Private Industry
Policy No. 1.1 Establish new and/or expand existing 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.	S	L	L	A	A
Policy No. 1.2 Expand the Countywide Household Hazardous Waste Management Program, and support development of permanent Environmental Collection Centers to complement the existing network of permanent collection centers operated by the County and the City of Los Angeles.	A	L	L	L	S
Policy No. 1.3 Encourage, where appropriate, businesses using alternative technologies to participate in the Recycling Market Development Zone Program or other programs that may become available.	A	L	L	A	A
Policy No. 1.4 Promote the purchase and use of recycled content and recyclable materials over virgin materials and to recycle, to the maximum extent feasible, materials generated by local government and public agencies within the County while supporting environmental responsibility for materials recycled outside of Los Angeles County.	A	L	L	A	A
Policy No. 1.5 Encourage the State to promote the development of markets for recycled materials, to the greatest extent feasible, and to promote extended producer responsibility for products sold in California.	L	L	L	A	A

TABLE 2-1: Countywide Siting Element Task Implementation Responsibilities for Year 2018-2033 (Cont.)

KEY

L Lead Entity

S Support Entity

A Advisory Entity

	Los Angeles County Solid Waste Mgmt Committee/Integrated Waste Mgmt Task Force	Los Angeles County Government	Incorporated Cities	County Sanitation Districts	Private Industry
GOAL NO. 2 **To decrease the volume and tonnage of solid waste being disposal of at landfills by continuing to implement and expand source reduction, recycling, reuse, composting, and public education programs as well as promoting the development of alternative technologies which complement recycling efforts.**					
Policy No. 2.1 Implement and expand commercial, residential, and governmental recycling, composting, public outreach, and other equivalent programs where feasible.	S	L	L	A	S
Policy No. 2.2 Enhance coordination between the County and cities in Los Angeles County to implement, maintain, and expand cities' and Countywide solid waste management programs.	L	L	S	A	S
Policy No. 2.3 Enhance coordination between the County, cities in Los Angeles County, and the private sector to implement and expand cities' and Countywide public education programs addressing all aspects of an integrated solid waste management system.	L	L	L	A	S
Policy No. 2.4 Evaluate efforts to expand resources available for implementing new and existing cities' and Countywide waste diversion programs and expand programs as appropriate.	L	L	L	A	S
GOAL NO. 3 **To promote, encourage, and expand waste diversion activities by solid waste facility operators.**					
Policy No. 3.1 Encourage solid waste facility operators to promote and help develop facilities that divert materials from disposal, and institute waste salvage/diversion operations in compliance with all applicable rules and regulations.	L	L	L	L	L
Policy No. 3.2 Coordinate with solid waste disposal facility operators to acquire and provide data necessary for cities in Los Angeles County and the County to comply with State and local waste diversion requirements.	A	L	L	S	S

TABLE 2-1: Countywide Siting Element Task Implementation Responsibilities for Year 2018-2033 (Cont.)

KEY

L Lead Entity

S Support Entity

A Advisory Entity

	Los Angeles County Solid Waste Mgmt Committee/Integrated Waste Mgmt Task Force	Los Angeles County Government	Incorporated Cities	County Sanitation Districts	Private Industry
GOAL NO. 4					
To conserve Class III landfill capacity through recycling and reuse of inert waste, disposal of inert waste at inert waste landfills, increased waste disposal compaction rates, and diversion of compostable and organic materials from the waste stream, provided the use of such materials protects the health, welfare, and safety of the citizens in Los Angeles County, as well as the environment.					
Policy No. 4.1 As a part of the building, demolition, grading, and construction permit process, and through various construction, demolition, and debris recycling ordinances and programs, encourage and/or require inert waste diversion to the maximum extent environmentally and economically feasible.	A	L	L	A	S
Policy No. 4.2 Encourage solid waste facility operators to maximize available capacity by requiring, when appropriate, Class III landfill operators to increase density of disposed materials and implement measures minimizing inert and organic waste disposal.	A	L	L	S	S
Policy No. 4.3 Collaborate, coordinate, share resources, and encourage inter-jurisdictional cooperation in developing a countywide organic materials management plan.	A	L	L	S	S
Policy No. 4.4 Encourage Class III landfill operators to analyze the feasibility of using the balefilling, refuse derived fuel, or other similar space-saving processes, when appropriate, if they result in landfill space savings and are economically feasible.	S	L	L	S	S
Policy No. 4.5 Encourage Class III landfill operators to use tarps where appropriate, and other appropriate materials for landfill daily cover.	S	L	L	S	S

TABLE 2-1: Countywide Siting Element Task Implementation Responsibilities for Year 2018-2033 (Cont.)

KEY

L Lead Entity

S Support Entity

A Advisory Entity

	Los Angeles County Solid Waste Mgmt Committee/Integrated Waste Mgmt Task Force	Los Angeles County Government	Incorporated Cities	County Sanitation Districts	Private Industry
GOAL NO. 5 **To protect the health, welfare, safety, and 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 management system.**					
Policy No. 5.1 Collaborate, coordinate, share resources, and encourage inter-jurisdictional cooperation in developing a regional operational area mass debris management plan.	A	L	L	S	S
Policy No. 5.2 Promote and encourage inter-jurisdictional cooperation on solid waste issues.	L	L	L	L	S
Policy No. 5.3 Increase Los Angeles County region's influence at State and Federal levels by collaboratively developing common positions on solid waste management issues.	S	L	L	L	A
Policy No. 5.4 Encourage public and private sector participation in finding and implementing solutions to meet countywide solid waste management challenges.	S	L	L	L	L
Policy No. 5.5 Continue to work toward enhancing the existing public/private solid waste management system including partnerships in order to maintain reasonable costs through competitive market forces and appropriate incentives for diverting solid waste for beneficial reuse.	A	L	L	L	S
Policy No. 5.6 Promote and encourage inter-jurisdiction cooperation in the use of the Mesquite Regional Landfill waste-by-rail system to serve the waste disposal needs of Los Angeles County residences and businesses as part of an efficient and economical solid waste management system.	S	L	S	L	A

TABLE 2-1: Countywide Siting Element Task Implementation Responsibilities for Year 2018-2033 (Cont.)

KEY

L Lead Entity

S Support Entity

A Advisory Entity

	Los Angeles County Solid Waste Mgmt Committee/Integrated Waste Mgmt Task Force	Los Angeles County Government	Incorporated Cities	County Sanitation Districts	Private Industry
GOAL NO. 6 **To foster the development of alternative technologies as alternatives to landfill disposal.**					
Policy No. 6.1 Support and coordinate the development of alternative technologies and other innovative waste management technologies which would reduce dependence on landfills.	L	L	L	L	L
Policy No. 6.2 Support and promote legislation and regulations which would promote development of alternative technology facilities by providing economic incentives, as well as recognizing alternative technology as a diversion activity.	S	L	L	L	L
Policy No. 6.3 Encourage private sector development of alternative technologies.	S	S	S	A	L
Policy No. 6.4 Support and promote awareness of alternative technologies by providing information on alternative technologies to any requesting entity.	L	L	L	L	A
Policy No. 6.5 Work cooperatively to coordinate permitting necessary for the development of facilities which utilize alternative technologies.	S	L	L	L	L
Policy No. 6.6 Encourage solid waste management facility operators, through the land use permit process, to develop alternative technology facilities onsite or send post-materials recovery facility feedstock to facilities that process and convert municipal solid waste into renewable energy, biofuels, and/or other beneficial products.	A	L	L	S	S

TABLE 2-1: Countywide Siting Element Task Implementation Responsibilities for Year 2018-2033 (Cont.)

KEY

L Lead Entity

S Support Entity

A Advisory Entity

	Los Angeles County Solid Waste Mgmt Committee/Integrated Waste Mgmt Task Force	Los Angeles County Government	Incorporated Cities	County Sanitation Districts	Private Industry
GOAL NO. 7 **To provide siting criteria that considers and provides for the environmentally sound and technically feasible development of solid waste management facilities, including alternative technology facilities (e.g., conversion technology, transformation) and landfills.**					
Policy No. 7.1 Support and promote legislation and regulation establishing uniform, minimum, and feasible Statewide standards for all solid waste management facilities.	S	L	L	S	S
Policy No. 7.2 Encourage the coordination of solid waste management efforts through the Task Force to share information Countywide and avoid duplication of effort.	L	L	L	A	A
Policy No. 7.3 Ensure maximum public participation in land use permitting decisions, including addressing environmental justice concerns.	L	L	L	A	A
Policy No. 7.4 Ensure all new or expansions of existing solid waste disposal facilities conform to the CSE siting criteria, through the Finding of Conformance or another approval process.	L	S	S	A	A
Policy No. 7.5 Achieve compliance with all Federal, State, and local regulations at all existing solid waste management facilities.	S	L	L	S	S
Policy No. 7.6 Provide technical assistance in land use planning and the criteria for siting solid waste management facilities.	L	S	S	A	A
Policy No. 7.7 Consider incorporating the Finding of Conformance approval as one of the conditions of their respective Land Use Permit or Conditional Use Permit.	L	L	L	S	S
Policy No. 7.8 Consider the Finding of Conformance requirements as part of their jurisdiction's General Plan requirements.	L	L	L	S	S

TABLE 2-1: Countywide Siting Element Task Implementation Responsibilities for Year 2018-2033 (Cont.)

KEY

L Lead Entity

S Support Entity

A Advisory Entity

	Los Angeles County Solid Waste Mgmt Committee/Integrated Waste Mgmt Task Force	Los Angeles County Government	Incorporated Cities	County Sanitation Districts	Private Industry
GOAL NO. 8 To protect the health, welfare, and safety of all citizens of the 88 cities in Los Angeles County and the County unincorporated communities by addressing their solid waste disposal needs during the 15-year planning period through development of environmentally sound and technically feasible solid waste management facilities for solid waste which cannot be reduced, recycled, composted, or otherwise put to beneficial use.					
Policies to Enhance In-County Landfill Disposal Capacity.					
Policy No. 8.1 Assist jurisdictions in developing disposal capacity available for expansion within their boundaries.	S	S	L	A	A
Policy No. 8.2 Facilitate any permitting for the development of in-County solid waste management facility expansions, if feasible.	S	S	S	L	L
Policy No. 8.3 Promote land use policies aimed at discouraging incompatible land uses adjacent to solid waste management facility sites.	S	L	L	A	A
Policies to Facilitate Utilization of Out-of-County/Remote Disposal Facilities.					
Policy No. 8.4 Support policies which would facilitate the use of remote and/or out-of-County disposal sites as a supplement to in-County disposal capacities.	S	S	S	L	L
Policy No. 8.5 Actively seek and identify out-of-County disposal opportunities as a supplement to in-County disposal capacities to ensure the disposal needs of Los Angeles County are met.	L	L	L	L	S
Policy No. 8.6 Support and coordinate the use and development of Mesquite Regional Landfill out-of-County/remote disposal facility projects as a supplement to in-County disposal capacities, provided they are environmentally sound and technically feasible.	S	S	S	L	L

TABLE 2-1: Countywide Siting Element Task Implementation Responsibilities for Year 2018-2033 (Cont.)

KEY

L Lead Entity

S Support Entity

A Advisory Entity

	Los Angeles County Solid Waste Mgmt Committee/Integrated Waste Mgmt Task Force	Los Angeles County Government	Incorporated Cities	County Sanitation Districts	Private Industry
Policy No. 8.7 Support and coordinate the development of infrastructure necessary for solid waste transfer and rail loading to remote and/or out-of-County disposal facilities, provided they are environmentally sound and technically feasible.	S	L	L	L	L
Policy No. 8.8 Promote and/or sponsor legislation to streamline the permit process in order to facilitate the development of a waste-by-rail system, provided it is environmentally sound and technically feasible.	S	L	L	L	L
Policy No. 8.9 Facilitate coordination and any permitting necessary for the development of solid waste management facilities with rail-loading capability necessary to provide access to remote and/or out-of-County disposal sites when environmentally sound and technically feasible.	S	L	L	A	A
Countywide Siting Element Administration					
Process Finding of Conformance applications.	L	A	A	A	A
Update disposal quantity statistics on a quarterly basis.	A	L	A	S	S
Prepare revisions/upgrades to the Countywide Siting Element annually.	A	L	S	A	A

2.6 COUNTYWIDE SITING ELEMENT ADMINISTERING AGENCY AND FUNDING SOURCE

Pursuant to CCR, Title 14, Section 18756.7, under the auspices of the Los Angeles County Board of Supervisors, Los Angeles County Public Works is responsible for preparation, maintenance, and administration of the CSE. 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.

Due to increased waste reduction and diversion rates, which may lead to declining revenue to fund the activities of the CSE, the Solid Waste Management Fee ordinance (Chapter 20.88 of the Los Angeles County Code) may be revised to include imposition of a "tipping fee" surcharge on each ton of solid waste collected and/or received by solid waste facilities and waste handling enterprises.

Key Terms

Tipping Fee
Refers to a fee for unloading or dumping waste at a solid waste management facility.

3

Existing Solid Waste Disposal Facilities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3.0 EXISTING SOLID WASTE DISPOSAL FACILITIES

3.1 PURPOSE

This chapter identifies and provides detailed information on the existing Class III landfills, inert waste landfill, and transformation facilities located within Los Angeles County (County). This Chapter includes descriptions and location maps of the facilities.

The requirements for the content of this chapter are drawn from California Code of Regulations (CCR), Title 14, Division 7, Chapter 9, Article 6.5, Section 18755.5, and are discussed in Section 3.3 of this Chapter.

3.2 DEFINITIONS

Definitions of key terms used in this Chapter are included when referenced. For a more complete listing of acronyms and definitions, please refer to the List of Acronyms and Glossary of Terms at the beginning and end of this document, respectively.

Key Terms

Class III Landfill
Refers to a land disposal site. Class III landfills are only permitted to accept nonhazardous solid waste materials where site characteristics and containment structures isolate the solid waste from the waters of the State. The landfill disposal site must meet the requirements of the Federal Resource Conservation and Recovery Act (RCRA), Subtitle D; CCR, Title 14, Sections 17000 et seq.; and other regional and local rules and regulations.

Key Terms

Solid Waste Disposal Facility
Refers to Class III landfills, inert waste landfills, alternative technology facilities (e.g., certain conversion technology, transformation), and other emerging technology facilities, pending clarification of the regulatory status of the alternative technology facilities.

3.3 SPECIFIC REQUIREMENTS

The specific requirements for the description of existing solid waste disposal facilities can be found in CCR, Title 14, Section 18755.5, 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 United States Geological Survey (USGS) quadrangle.

3.4 INTRODUCTION

The California Integrated Waste Management Act of 1989, Assembly Bill 939 (AB 939), as amended (Section 40000 et seq. of PRC) recognized the need for adequate disposal capacity for solid waste generated by a county that cannot be diverted through source reduction, recycling, or composting. Therefore, AB 939 required all counties in the State to address the need for 15 years of disposal capacity to safely handle the residual solid waste that cannot be reduced, recycled, or composted.

The solid waste generated in the County is either hauled directly to permitted Class III landfills, **inert waste landfills**, and transformation facilities or indirectly via one of the numerous materials recovery facilities and transfer stations located throughout the County.

In 1995, over 40,900 tons per day of solid waste that could not be reduced, recycled, or composted were disposed of in 11 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 located in the County.

Since 1995, the BKK Landfill, Lopez Canyon Landfill, Spadra Landfill, Two Harbors Landfill, Bradley Landfill, Brand Park Landfill, and Puente Hills Landfill, as well as the Class III landfill portion of Azusa Land Reclamation Facility, have closed.

At the end of 2018, 5,895,929 tons of solid waste, at an average daily rate of 18,897 tons per day (tpd) were disposed in seven major and four minor Class III landfills, one permitted inert waste landfill, and two transformation facilities located in the County, including imported solid waste (approximately 776 tpd) from outside the County.

This mix of publicly and privately operated facilities comprises a complex network of solid waste management facilities that protects the public health and ensures the environmentally safe disposal of solid waste.

Key Terms

Inert Waste Landfill
Refers to landfills that accept inert waste. CCR, Title 14, Section 18720 (32) defines inert waste as "a non-liquid solid waste including, but not limited to, soil and concrete, that does not contain hazardous waste or soluble pollutants at concentrations in excess of applicable water-quality objectives established by a regional water quality board pursuant to division 7 (commencing with Section 13000) of the California Water Code [CWC] and does not contain significant quantities of decomposable solid waste."

Inert Waste
Defined in CCR, Title 14, Section 18720 (32) as "a non-liquid solid waste including, but not limited to, soil and concrete, that does not contain hazardous waste or soluble pollutants at concentrations in excess of applicable water-quality objectives established by a regional water board pursuant to division 7 (commencing with section 13000) of the California Water Code [CWC], and does not contain significant quantities of decomposable solid waste."

3.5 EXISTING CLASS III LANDFILLS IN LOS ANGELES COUNTY

Class III landfills are those facilities that must be located where site characteristics and containment structures isolate solid waste from the waters of the State. These Class III landfills must meet the requirements of the Federal Resource Conservation and Recovery Act, Subtitle D; CCR, Title 14, Sections 17000 et seq.; 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 sub drain 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 that 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 ensure the quality of surface and ground water and other environmental resources while protecting the public health and safety.

A detailed summary of the existing Class III landfills in the County is provided in **Table 3-1** and **Map 3-1** of this Chapter, and **Table 4-4** of **Chapter 4** of the CSE. **Chapter 6** and **Attachment 6A** discuss in detail the siting criteria to be applied to proposed new or expansions of existing Class III landfill sites.

TABLE 3-1: Summary of Existing Class III Landfills, Permitted Inert Waste Landfill, and Transformation Facilities in Los Angeles County

No.	FACILITY NAME	SWFP[1] NUMBER	SITE LOCATION/ADDRESS *[Land Use Jurisdiction]* (Thomas Guide Page/Grid)	OWNER [OPERATOR]	REMAINING PERMITTED CAPACITY[2] As of 12/31/2018 (tons)	MAXIMUM PERMITTED DAILY DISPOSAL RATE (tons/day)		2018 AVERAGE DAILY DISPOSAL RATE (tons/day)	CURRENT CLOSURE DATES			MINIMUM EXISTING REMAINING LIFE (in years, as of 12/31/2018)[3]
						LUP[4] / CUP[5]	SWFP		LUP/CUP	SWFP	CAPACITY EXHAUSTION DATE[6]	
1	Antelope Valley Recycling and Disposal Facility	19-AA-5624[7]	1200 West City Ranch Road, Palmdale, CA 93551 *[City of Palmdale]* (4285-G2)	Waste Management of California [Waste Management of California]	12,001,395	3,600	3,600	1,656	Upon completion of approved fill design[8]	2044	**2040** [2041]	22
2	Calabasas Landfill	19-AA-0056	5300 Lost Hills Road Agoura, CA 91301 *[County of Los Angeles]* (588-G1)	County of Los Angeles [County Sanitation Districts]	4,908,186	None[9]	3,500	1,021	None	2029	**2023** [2033]	11
3	Chiquita Canyon Landfill	19-AA-0052	29201 Henry Mayo Drive Valencia, CA 91384 *[County of Los Angeles]* (4549-E2)	Waste Connections, Inc. [Waste Connections, Inc.]	59,752,250[10]	6,616 ('17-'24) 3,411 ('25-'47)	10,000	4,904	2047	2047	**2047** [2057]	29
4	Lancaster Landfill and Recycling Center	19-AA-0050	600 East Avenue "F" Lancaster, CA 93535 *[County of Los Angeles]* (3925-G6)	Waste Management of California [Waste Management of California]	10,231,322	5,100	3,000	370	10/19/2041	3/01/2044	**2029** [2107]	11
5	Scholl Canyon Landfill	19-AA-0012	3001 Scholl Canyon Road Glendale, CA 91206 *[City of Glendale]* (565-D5)	City of Glendale and County of Los Angeles [County Sanitation Districts]	4,294,664	None	3,400	1,292	None	4/1/2030	**2022** [2029]	4
6	Sunshine Canyon City/County Landfill	19-AA-2000	14747 San Fernando Road Sylmar, CA 91342 *[County and City of Los Angeles]* (481-C2)	Republic Services, Inc. [Republic Services, Inc.]	65,274,183	12,100	12,100	6,765	2/06/2037[11]	2037	**2037** [2049]	19

1 "SWFP" means Solid Waste Facility Permit.

2 Remaining Permitted Capacity is based on 2018 Annual Report.

3 The existing remaining life is derived from data in the 2018 Annual Report and is based on consideration of the closure dates per LUP/CUP and the SWFP, and the date of exhaustion of the remaining disposal capacity due to both the maximum permitted and average daily disposal rate, whichever is less.

4 "LUP" means Land Use Permit.

5 "CUP" means Conditional Use Permit.

6 Closure date due to exhaustion of existing disposal capacity is based on (1) the maximum permitted daily disposal rate (which is bolded) and (2) the average daily disposal rate [which is shown in brackets].

7 Effective 06/21/2011, Antelope Valley Landfill No.1 and No. 2 consolidated the entire landfill operation under one single SWFP and one CUP granted by the City of Palmdale.

8 The closure date for Antelope Valley Landfill No. 2 is upon completion of approved fill design.

9 "None" means no information is provided in the permit.

10 The current CUP of Chiquita Landfill expired in June 2016 when the landfill reached its fill capacity limits. A "Clean Hands Waiver" was granted to Chiquita Canyon Landfill on March 17, 2016 to continue its operation while processing the landfill's new conditional use permit. On July 25, 2017, the Board of Supervisors approved a new Conditional Use Permit for the Landfill;s Expansion Project.

Public Works
LOS ANGELES COUNTY

TABLE 3-1: Summary of Existing Class III Landfills, Permitted Inert Waste Landfill, and Transformation Facilities in Los Angeles County

TABLE 3-1: Summary of Existing Class III Landfills, Permitted Inert Waste Landfill, and Transformation Facilities in Los Angeles County (Cont.)

No.	FACILITY NAME	SWFP[1] NUMBER	SITE LOCATION/ADDRESS *[Land Use Jurisdiction]* (Thomas Guide Page/Grid)	OWNER [OPERATOR]	REMAINING PERMITTED CAPACITY[2] As of 12/31/2018 (tons)	MAXIMUM PERMITTED DAILY DISPOSAL RATE (tons/day)		2018 AVERAGE DAILY DISPOSAL RATE (tons/day)	CURRENT CLOSURE DATES			MINIMUM EXISTING REMAINING LIFE (in years, as of 12/31/2018)[3]
						LUP[4] / CUP[5]	SWFP		LUP/CUP	SWFP	CAPACITY EXHAUSTION DATE[6]	
EXISTING MINOR CLASS III LANDFILLS												
7	Burbank Landfill No. 3	19-AA-0040	3000 Bel Aire Drive Burbank, CA 91504 *[City of Burbank]* (533-H4)	City of Burbank [City of Burbank]	2,264,431	None	240	102	None	2053	**2054** [2089]	35
8	Pebbly Beach Landfill	19-AA-0061	1 Dump Road, Santa Catalina Island, City of Avalon, CA 90704 *[County of Los Angeles]* (5923-H5)	City of Avalon [Consolidated Disposal Services Doing Business As: Seagull Sanitation Systems]	46,314	49	49	12	7/29/2028	2033	**2021** [2031]	3
9	San Clemente Island Landfill	19-AA-0063	Naval Auxiliary Landing Field San Clemente Island, CA 92135 *[U.S. Department of the Navy]* (N/A)	U.S. Department of the Navy [U.S. Department of the Navy]	35,650	None	10	1	None	2032	**2054** [2118]	14
10	Savage Canyon Landfill	19-AH-0001	13919 East Penn Street Whittier, CA 90602 *[City of Whittier]* (677-E7)	City of Whittier [City of Whittier]	4,580,480	None	350	290	None	2055	**2061** [2069]	37
EXISTING PERMITTED INERT WASTE LANDFILLS												
11	Azusa Land Reclamation Landfill[12]	19-AA-0013	1211 West Gladstone Street Azusa, CA 91702 *[City of Azusa]* (598-G2)	USA Waste of California [USA Waste of California]	57,716,118	None	6,500	1,148	None	2045	**2046** [2179]	28

11 The closure date of Sunshine Canyon Landfill is upon the date the Landfill reaches its Limits of Fill or 2/05/2037, whichever occurs first.

12 Azusa Land Reclamation ceased accepting non-inert solid waste in October 1996.

TABLE 3-1: Summary of Existing Class III Landfills, Permitted Inert Waste Landfill, and Transformation Facilities in Los Angeles County (Cont.)

TABLE 3-1: Summary of Existing Class III Landfills, Permitted Inert Waste Landfill, and Transformation Facilities in Los Angeles County (Cont.)

No.	FACILITY NAME	SWFP[1] NUMBER	SITE LOCATION/ADDRESS *[Land Use Jurisdiction]* (Thomas Guide Page/Grid)	OWNER [OPERATOR]	REMAINING PERMITTED CAPACITY[2] As of 12/31/2018 (tons)	MAXIMUM PERMITTED DAILY DISPOSAL RATE (tons/day)		2018 AVERAGE DAILY DISPOSAL RATE (tons/day)	CURRENT CLOSURE DATES			MINIMUM EXISTING REMAINING LIFE (in years, as of 12/31/2018)[3]
						LUP[4] / CUP[5]	SWFP		LUP/CUP	SWFP	CAPACITY EXHAUSTION DATE[6]	
EXISTING TRANSFORMATION FACILITIES												
12	Commerce Refuse-to-Energy Facility (closed as of June 2018)	19-AA-0506	5926 Sheila Street Commerce, CA 90040 *[City of Commerce]* (675-H4)	City of Commerce Refuse-to-Energy Authority [County Sanitation Districts No. 2]	N/A[13]	None	1,000	286[14]	N/A	N/A	N/A	N/A
13	Southeast Resource Recovery Facility	19-AK-0083	120 Pier S Avenue Long Beach, CA 90802 *[City of Long Beach]* (824-H1)	Southeast Resource Recovery Facility Joint Powers Authority [Covanta Long Beach Renewable Energy]	N/A	None	2,240	1,192[15]	N/A	N/A	N/A	N/A

13 "N/A" means Not Applicable.

14 Commerce Refuse-to-Energy Facility's average daily disposal rate is based on the SWFP limit of 2,800 tons per week, expressed as a daily average, seven days per week. The facility shall not receive more than 1,000 tons (during any operating day) of solid waste without a revision of the permit.

15 Southeast Resource Recovery Facility's average daily disposal rate is based on United States Environmental Protection Agency limit of 500,000 tons per year, expressed as a daily average, seven days per week.

Public Works
LOS ANGELES COUNTY

TABLE 3-1: Summary of Existing Class III Landfills, Permitted Inert Waste Landfill, and Transformation Facilities in Los Angeles County (Cont.)

MAP 3-1: Locations of Existing Class III Landfills, Permitted Inert Waste Landfills, and Transformation Facilities in Los Angeles County

Kern County

San Bernardino County

Ventura County

Orange County

Riverside County

Lancaster

Burbank
Glendale

Pasadena

Alhambra

Los Angeles

El Monte

West Covina

Romona

Santa Monica

Inglewood

South Gate

Downey

Norwalk

Compton

Lakewood

Torrance

Carson

Avalon

Santa Catalina Island

San Clemente Island

*Not to scale nor at true location.

Public Works
LOS ANGELES COUNTY

N

0 10 miles

This map is for planning or diagraming purposes only. Los Angeles County expressly disclaims any liability for any inaccuracies which may be present in this map.

Source: Los Angeles County Department of Public Works, (Nov. 2005)

Legend

Facilities

- 1 Existing Major Class III Landfills
- 7 Existing Minor Class III Landfills
- 11 Existing Permitted Inert Waste Landfills
- 12 Existing Waste-to-Energy (Combustion) Facilities

Class III Landfills - Major

1 | Antelope Valley Recycling and Disposal Facility

2 | Calabasas Landfill

3 | Chiquita Canyon Landfill

4 | Lancaster Landfill and Recycling Center

5 | Scholl Canyon Landfill

6 | Sunshine Canyon City/County Landfill

Class III Landfills - Minor

7 | Burbank Landfill No. 3

8 | Pebbly Beach Landfill

9 | San Clemente Island Landfill

10 | Savage Canyon Landfill

Permitted Inert Waste Landfill

11 | Azusa Land Reclamation Landfill

Transformation Facilities

12 | Commerce Refuse-to-Energy Facility (CREF)

13 | Southeast Resource Recovery Facility (SERRF)

- Interstate
- State Route
- US Highway
- Rail

*Note: See Table 3-1 for Additional Details on Facilities Listed Above.

MAP 3-1: Locations of Existing Class III Landfills, Permitted Inert Waste Landfills, and Transformation Facilities in Los Angeles County

3.5.1 Major Class III Landfills

In 1995, there were 11 major Class III landfills in operation:

- Antelope Valley Recycling and Disposal Facility
- Azusa Land Reclamation Landfill
- BKK Landfill
- Bradley Landfill
- Calabasas Landfill
- Chiquita Canyon Landfill
- Lancaster Landfill and Recycling Center
- Lopez Canyon Landfill
- Puente Hills Landfill
- Scholl Canyon Landfill
- Spadra Landfill
- Sunshine Canyon City/County Landfill (not operational in 1995; permitted but not fully developed)

Since 1995, the following major Class III landfills have closed or stopped receiving municipal solid waste:

- Azusa Land Reclamation Company Landfill (Class III landfill facility ordered to stop receiving municipal solid waste in October 1996)
- Bradley Landfill (facility closed on April 14, 2007, as required by land use permit)
- BKK Landfill (facility closed in September 1996)
- Lopez Canyon Landfill (facility closed in July 1996)
- Puente Hills Landfill (facility closed on October 31, 2013, as required by conditional use permit)
- Spadra Landfill (facility closed in September 2000)

As of December 31, 2018, there were six major Class III landfills in operation:

- Antelope Valley Recycling and Disposal Facility
- Calabasas Landfill
- Chiquita Canyon Landfill
- Lancaster Landfill and Recycling Center
- Scholl Canyon Landfill
- Sunshine Canyon City/County Landfill[1]

More detailed information on each major Class III landfill facility is provided in **Table 3-1**, Fact **Sheets 3-1** through **3-6**, **Figures 3-1** through **3-6,** and **Map 3-1** of this Chapter; and **Table 4-4** of **Chapter 4**. **Chapter 6** and **Attachment 6A** discuss in detail the siting criteria to be applied to proposed new or expansion of existing Class III and inert waste landfill sites.

1 The combined City/County Landfill became operational on December 31, 2008.

3.5.2 Minor Class III Landfills

In 1995, a portion of the total waste generated in the County was disposed in the following six minor Class III landfills:

- Brand Park Landfill (City of Glendale Public Works use only)
- Burbank Landfill No. 3 (City of Burbank use only)
- Pebbly Beach Disposal Site, Santa Catalina Island
- San Clemente Landfill, U.S. Navy Facility, San Clemente Island
- Savage Canyon Landfill (City of Whittier waste only)
- Two Harbors Landfill, Santa Catalina Island (closed in September 1995)

Since 1995, the following minor Class III landfills closed or ceased accepting municipal solid waste:

- Brand Park Landfill (permitted as a Minor Class III landfill; stopped accepting municipal solid waste in February 2010 but continues to accept inert waste.)[2]
- Two Harbors Landfill, Santa Catalina Island (facility closed in September 1995)

As of December 31, 2018, there were four minor Class III landfills in operation:

- Burbank Landfill No. 3 (City of Burbank use only)
- Pebbly Beach Landfill, Santa Catalina Island
- San Clemente Landfill, U.S. Navy Facility, San Clemente Island
- Savage Canyon Landfill (primarily for City of Whittier use only)

More detailed information on each minor Class III landfill facility is provided in **Table 3-1**, **Fact Sheets 3-7** through **3-10**, **Figures 3-7** through **3-10**, and **Map 3-1** of this Chapter; and **Table 4-4** of **Chapter 4**. **Chapter 6** and **Attachment 6A** discuss in detail the siting criteria to be applied to proposed new or expansion of existing Class III inert waste landfill sites.

2 Brand Park Landfill has ceased operation as a permitted minor class III landfill and obtained a closure and post-closure permit approval from the California Regional Water Quality Control Board (approval letter dated January 25, 2010) and concurrence from County of Los Angeles Department of Public Health (concurrence letter dated February 25, 2010). The City of Glendale (landfill owner/operator) is undergoing permit process for a proposed Construction, Demolition and Inert Waste (CDI) Processing Facility to be located at the closed landfill site.

3.6 EXISTING INERT WASTE LANDFILLS IN LOS ANGELES COUNTY

In this CSE, inert waste landfills refer to the landfills formerly referred to in the previous CSE (dated June 1997) as unclassified landfills. Inert waste landfills are permitted to accept 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. Inert waste landfills must be designed and operated in accordance with all laws and regulations mandated by State, regional, and local jurisdictions.

The current classification of inert waste landfills is primarily governed by the State's Construction and Demolition Waste and **Inert Debris** Disposal Phase II Regulatory Requirements (C&D Regulations) Phase II, CCR, Title 14, Sections 17387 through 17390 that became effective in February 2004. These regulations set forth permitting requirements, tier requirements, and minimum operating standards for operations and facilities that dispose construction and demolition (C&D) waste and inert debris. These regulations have placed inert waste landfills into four regulatory tiers, namely, full solid waste facility permit, registration permit, enforcement agency notification, and excluded operation, to ensure the level of oversight is consistent with the potential impact on public health and safety. Pursuant to these regulations, only inert waste landfills falling under the full solid waste facility permit and registration permit tiers are considered "permitted" disposal facilities.

The LEAs are currently in the process of finalizing the reclassification and placement of all the inert waste landfills in their respective regulatory tiers.

More detailed information on existing inert waste landfills is provided in **Table 3-2** and **Map 3-1** and **3-2** of this Chapter; and **Tables 4-4** and **4-5** of **Chapter 4**. **Chapter 6** and **Attachment 6A** discuss in detail the siting criteria to be applied to proposed new or expansion of existing inert waste landfill sites.

3.6.1 Permitted Inert Waste Landfills

In 1995, there were three permitted inert waste landfills in the County:

- Azusa Land Reclamation Landfill
- Peck Road Gravel Pit
- Reliance Landfill

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

The remaining inert waste landfills in the County either: (1) received insignificant amounts of waste so as to not require a SWFP; (2) are exempted from SWFP; or (3) otherwise lack a Solid Waste Facility Permit or Registration Permit issued by the LEA and concurred with by CalRecycle. Therefore, in accordance with the requirements of CCR, Title 14, Section 18755.5 (a), these inert waste landfills were not included in the CSE.

Since 1995, the following permitted inert waste landfills have applied and been reclassified as an **Inert Debris Engineered Filled Operation (IDEFO)** based on the provisions of CCR, Title 14, Sections 17387 through 17390 (Phase II of the State's C&D waste and inert debris disposal regulations):

- Nu-way Live Oak Reclamation
- Reliance Landfill

As of December 31, 2018, there is one permitted inert waste landfill in Los Angeles County:

- Azusa Land Reclamation Landfill (inert waste only portion)

More detailed information on Azusa Land Reclamation Landfill is provided in Section 3.8, **Table 3-2**, **Fact Sheets 3-11**, and **Figures 3-11**, **3-14**, and **3-15** of this Chapter; and **Tables 4-4** and **4-5** of **Chapter 4**.

Key Terms

Inert Debris
Defined in CCR, Title 14, Section 17388 as "solid waste and recyclable materials that are source separated or separated for reuse and do not contain hazardous waste (as defined in CCR, Title 22, section 66261.3 et. seq.) or soluble pollutants at concentrations in excess of applicable water quality [standards]. Inert debris may not contain any putrescible wastes. Gravel, rock, soil, sand, and similar materials, whether processed or not, that have never been used in connection with any structure, development, grading, or other similar human purpose, or that are uncontaminated, are not inert debris. Such materials may be commingled with inert debris.

Inert Debris Engineered Fill Operations (IDEFO):
Refers to a disposal activity exceeding one year in duration in which only the following inert debris may be used: fully cured asphalt, uncontaminated concrete (including steel reinforcing rods embedded in the concrete), crushed glass, brick, ceramics, clay, and clay products, which may be mixed with rock and soil. These materials are spread on land in lifts and compacted under controlled conditions to achieve a uniform and dense mass which is capable of supporting structural loading, as necessary, or supporting other uses such as recreation, agriculture, and open space in order to provide land that is appropriate for an end use consistent with approved local general and specific plans (e.g., roads, building sites, or other improvements) where an engineered fill is required to facilitate productive use(s) of the land. (See CCR, Title 14, Section 17388.)

Disposal of inert waste at inert waste landfills help conserve Class III landfill capacity.

TABLE 3-2: Summary of Existing Inert Waste Landfills in Los Angeles County (As of December 2018)

No.	FACILITY NAME	SWFP NUMBER	FACILITY ADDRESS	OWNER [OPERATOR]	TYPE OF SOLID WASTE FACILITY PERMIT	TYPE OF OPERATION	PERMITTED DAILY INTAKE CAPACITY (tons/day)	2018 AVERAGE DAILY DISPOSAL CAPACITY (tons/day)
1	Azusa Land Reclamation Co. Landfill	19-AA-0013	1211 West Gladstone Street Azusa, CA 91702	Azusa Land Reclamation, Inc. [Azusa Land Reclamation, Inc.]	Full[1]	Inert Waste Disposal Facility	6,500	1,148
2	Durbin Inert Debris Engineered Fill Site	19-AA-1111	13000 Los Angeles Street Irwindale, CA 91706	Vulcan Materials Company [Vulcan Materials Company]	EAN[2]	IDEFO[3]	4,800	3,089
3	Hanson Aggregates	19-AA-0044[4]	13550 Live Oak Avenue Irwindale, CA 91706-1318	Hanson Aggregates West, Inc. [Bryan Forgey]	EAN	IDEFO	4,006	N/A[5]
4	Manning's Pit[6]	None	5050 North Irwindale Avenue Irwindale, CA 91706	City of Irwindale [City of Irwindale]	None[7]	IDEFO	N/A	N/A
5	Montebello Land & Water Company	19-AA-0019	344 East Madison Avenue Montebello, CA 90640	Montebello Land & Water Company [Montebello Land & Water Company]	EAN	IDEFO	1	1
6	North Kincaid Pit[6]	None	6570 N. Irwindale Avenue Irwindale, CA 91702	City of Irwindale [City of Irwindale]	N/A	IDEFO	N/A	N/A
7	Nu-Way Arrow Reclamation[4]	19-AA-1074	1270 Arrow Highway Irwindale, CA 91706	JH Properties [Waste Management, Inc.]	EAN	IDEFO	7,500	2,026
8	Peck Road Gravel Pit	19-AA-0838	128 Live Oak Avenue Monrovia, CA 91016	S.L.S. & N., Inc. [S.L.S. & N., Inc.]	EAN	IDEFO	4,000	660
9	Reliance Landfill	19-AA-0854	15990 Foothill Boulevard Irwindale, CA 91706	Vulcan Materials Company [Vulcan Materials Company]	EAN	IDEFO	8,412	175
10	Sun Valley Landfill	19-AR-1160	9436 Glenoaks Boulevard Los Angeles, CA 91352	Vulcan Materials Company [Vulcan Materials Company]	EAN	IDEFO	1,823	2,411
11	United Rock Products	19-AA-0046	1245 Arrow Highway Irwindale, CA 91706	United Rock Products Corporation [United Rock Products]	EAN	IDEFO	3,846	1,157

1 "Full" means Full Solid Waste Facility Permit.

2 "EAN" means Enforcement Agency Notification.

3 "IDEFO" means Inert Debris Engineered Fill Operation.

4 Operator submitted an Inactive Notification to LEA on August 2007. The facility was still in-active based on the January 23, 2013 inspection.

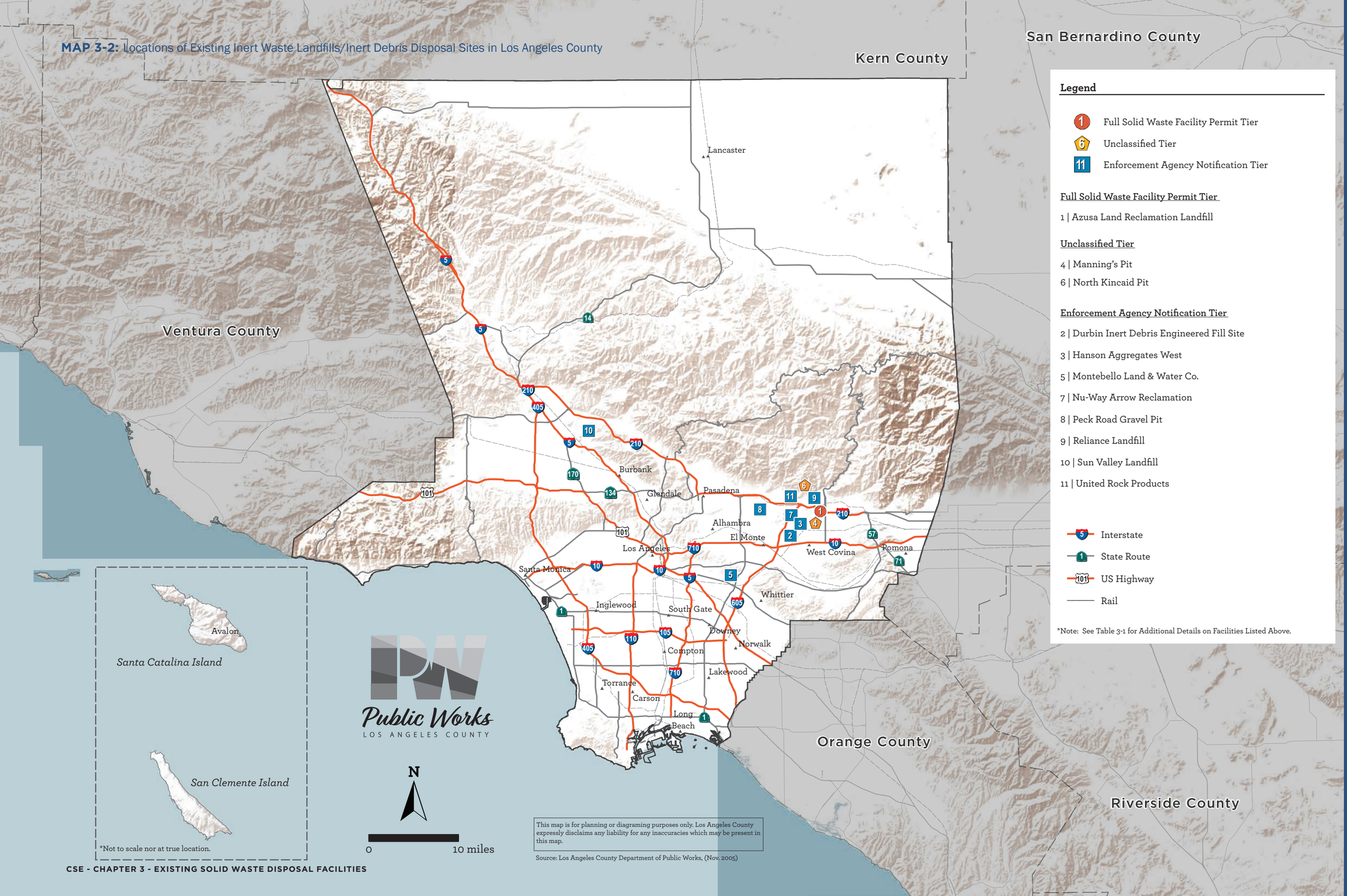
5 "N/A" means information not available.

6 Manning's Pit and North Kincaid Pit are both unclassified as of December 31, 2016.

7 "None" means that the landfill is currently active, but non permitted/exempt (i.e., no Full SWFP, Registration Permit, EA Notification, and not an Excluded Operation).

TABLE 3-2: Summary of Existing Inert Waste Landfills in Los Angeles County (As of December 2018)

MAP 3-2: Locations of Existing Inert Waste Landfills/Inert Debris Disposal Sites in Los Angeles County



Legend

- 1 — Full Solid Waste Facility Permit Tier
- 6 — Unclassified Tier
- 11 — Enforcement Agency Notification Tier

Interstate
State Route
US Highway
Rail

Full Solid Waste Facility Permit Tier

1 | Azusa Land Reclamation Landfill

Unclassified Tier

4 | Manning's Pit
6 | North Kincaid Pit

Enforcement Agency Notification Tier

2 | Durbin Inert Debris Engineered Fill Site
3 | Hanson Aggregates West
5 | Montebello Land & Water Co.
7 | Nu-Way Arrow Reclamation
8 | Peck Road Gravel Pit
9 | Reliance Landfill
10 | Sun Valley Landfill
11 | United Rock Products

*Note: See Table 3-1 for Additional Details on Facilities Listed Above.

MAP 3-2: Locations of Existing Inert Waste Landfills/Inert Debris Disposal Sites in Los Angeles County

Public Works
LOS ANGELES COUNTY

MAP 3-2: Locations of Existing Inert Waste Landfills/Inert Debris Disposal Sites in Los Angeles County

3.6.2 Inert Debris Engineered Fill Operations

The Inert Debris Engineered Fill Operations (IDEFO) are inert waste landfills regulated under the Enforcement Agency Notification (EAN) regulatory tier. These inert waste landfills can only accept specified inert waste material which must be compacted to allow for structural or other beneficial loading. The EAN regulatory tier is not considered a "solid waste facility permit" under the State's tiered regulatory structure. Therefore, for the purposes of determining a jurisdiction's compliance with the waste reduction mandate of State law, materials disposed at IDEFOs are not considered disposal or diversion and are not to be added to the jurisdiction's disposal amounts reported through the State's Disposal Reporting System (DRS). Most inert waste landfills in Los Angeles County are expected to fall under this tier.

As of December 31, 2018, the following additional inert waste landfills have been reclassified as IDEFOs under the State regulations and now fall under the EAN regulatory tier:

- Chandler's Palos Verdes Sand
- Hanson Aggregates (Livingston-Graham)
- Lower Azusa Reclamation Project
- Montebello Land and Water Company
- Nu-Way Arrow Reclamation
- Peck Gravel Road
- Sun Valley Landfill

In 2018, there were ten IDEFOs in the County:

- Durbin Landfill
- Hanson Aggregates West, Inc.[3]
- Manning's Pit[4]
- Montebello Land and Water Company
- North Kincaid Pit
- Nu-Way Arrow Reclamation
- Peck Road Gravel Pit
- Reliance Pit II Inert Debris Engineered Fill Site
- Sun Valley Landfill
- United Rock Products Pit #2

However, these facilities will not be considered in the CSE for disposal capacity planning purposes but are included and considered as part of the overall solid waste management system. Goal No. 4 and its Policy 4.1 provides that through various construction and demolition debris recycling and reuse ordinances and programs, will encourage and/or require, when appropriate, diversion of inert waste from Class III landfills to IDEFOs in order to preserve in-County disposal capacity and encourage redevelopment of the IDEFO sites to the maximum extent environmentally and economically feasible.

More detailed information on each IDEFO is provided in Section 3.8, Table 3-2, **Map 3-2, and Appendix 3-A (City of Irwindale Mining and Reclamation Sites)** of this Chapter; and **Table 4-5** of **Chapter 4**.

3 Operator submitted an Inactive Notification to LEA on August 2007. The facility was still in-active based on the January 23, 2013 inspection.

4 Manning Pit is unclassified as of December 31, 2015.

3.7 EXISTING TRANSFORMATION FACILITIES IN LOS ANGELES COUNTY

State law (PRC Section 40120.1) defines disposal as "the management of solid waste through landfill disposal or transformation at a permitted solid waste facility." Therefore, under current law, transformation facilities are recognized as disposal facilities and are also currently the only existing disposal alternatives to landfills. As a result, transformation facilities are included in this Chapter's discussion of existing disposal facilities and also in **Chapter 5's** discussion (e.g., **Flowchart 5-1** [Alternative Technology Process]) of alternative technologies.

Of the various transformation processes currently available or under development, mass burn is the transformation process that has been identified as an effective alternative to divert the largest amount of solid waste from landfills. The existing transformation facilities that use mass burn processes 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 proven to be technically and environmentally feasible waste management alternatives to land disposal.

Chapters 5 and **7** discuss in detail existing alternative technologies and other issues concerning the establishment of alternative technology facilities in the County, including transformation and conversion technology facilities. **Chapter 6** and **Attachment 6A** discuss in detail the siting criteria to be applied to alternative technology facility sites.

In 1995, there were two transformation facilities in operation in the County:

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

As of December 31, 2018, CREF has ceased its operation. The facility closed in June 2018. SERRF continues to be operational with no established closure date.

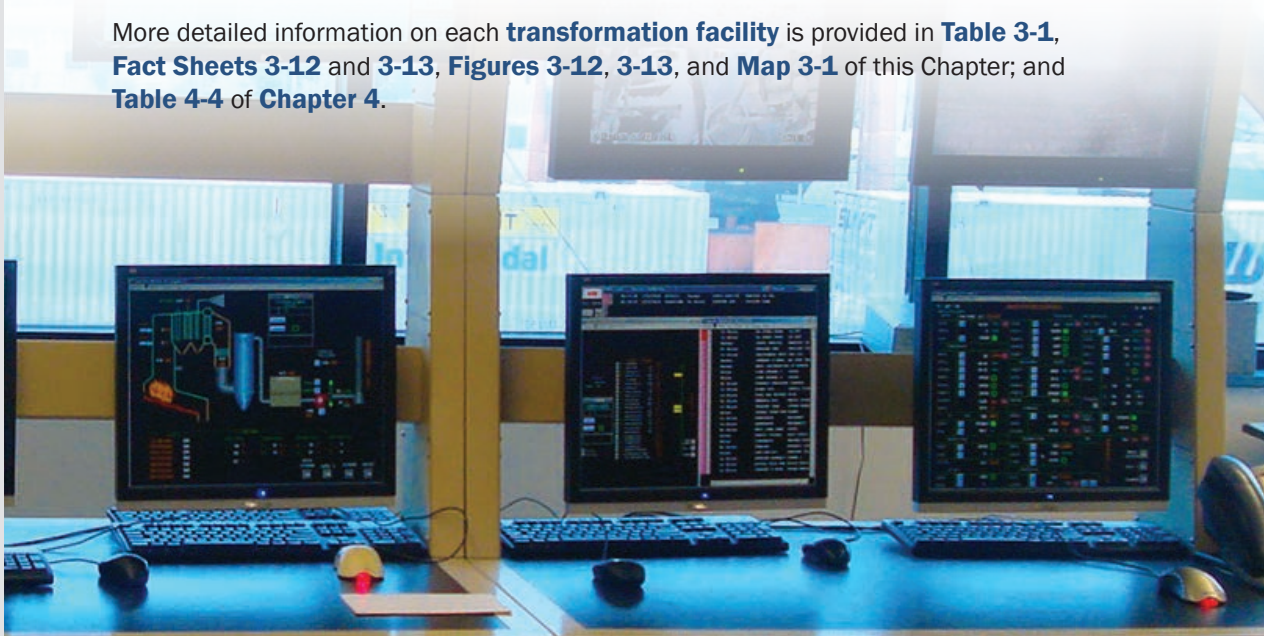
Opened in 1987, the Commerce Refuse-to-Energy Facility (CREF) is located in the City of Commerce and is owned by the Commerce Refuse-to-Energy Authority, a Joint Powers Authority (JPA) formed between the City of Commerce and the County Sanitation District (CSD) No. 2 of the County. The facility was operated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

The Southeast Resource Recovery Facility (SERRF), in the City of Long Beach, began operation in 1988. The facility is owned by the SERRF JPA formed by the City of Long Beach and CSD No. 2 of Los Angeles County, and is currently operated by Covanta Long Beach Renewable Energy under contract with the City of Long Beach.

More detailed information on each **transformation facility** is provided in **Table 3-1**, **Fact Sheets 3-12** and **3-13**, **Figures 3-12**, **3-13**, and **Map 3-1** of this Chapter; and **Table 4-4** of **Chapter 4**.

Key Terms

Transformation Facility
Refers to a facility whose principal function is to convert, combust, or otherwise process solid waste by "incineration, pyrolysis, distillation, or biologically conversion" for the purpose of volume reduction, synthetic fuel production, or energy recovery. Transformation facility does not include a composting, gasification, EMSW conversion, or biomass conversion facility.




DANGER
OPEN
PIT


FURNACE
CAMERA

3.8 TABLES, FACT SHEETS, AND FIGURES

This section includes (1) **Table 3-1** and **Fact Sheets 3-1** to **3-13** (and accompanying **Figures 3-1** to **3-13**) that describe existing Class III landfills, the permitted inert waste landfill, and transformation facilities in the County, and show the location of each facility, property boundaries, and disposal footprint; and (2) **Table 3-2** and **Map 3-2** that provide a summary and location of inert waste landfill facilities in the County.

Data in the fact sheets regarding facility information, **maximum permitted daily capacity**, land use/Conditional Use Permit (CUP), waste discharge requirements permit, permitted waste types, future land use, and restrictions were obtained by an annual survey completed by all solid waste facilities. This survey is conducted by Los Angeles County Public Works (Public Works). Other pertinent information is acquired from the disposal facility permit information on file at Public Works, the Solid Waste Information Management Systems (SWIMS) managed by the Environmental Programs Division of Public Works, and the State's Solid Waste Information System (SWIS) database.

Data in the fact sheets regarding facilities' remaining **permitted disposal capacity** and average daily waste quantities were obtained from the 2018 survey and updated using the 2018 Disposal Quantity Reporting data, and information from the SWIMS database.

Additionally, two important factors used throughout the CSE that are listed in the fact sheets 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. Similarly, 2,500 pounds per cubic yard is assumed for the inert waste landfills.

PRC Section 18755.5 requires the County to provide yearly and daily permitted capacities. Since most facilities only have a daily limit (and sometimes a weekly or monthly limit) the yearly equivalent as listed in the fact sheets 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 in the fact sheets.

The future land use for facilities which may close during the 15-year planning period can be found on the facilities' Fact Sheet.

Key Terms

Maximum Permitted Daily Capacity
Refers to 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 ((SWFP) full or registration tier permit only), Land Use/Conditional Use Permit (LUP/CUP), Waste Discharge Requirements, and Permit to Operate, whichever is more restrictive.

Permitted Disposal Capacity or Permitted Capacity
Refers to 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 (SWFP) (full or registration tier permit only), Land/Conditional Use Permit (LUP/CUP), Waste Discharge Requirements, and Permit to Operate by the local Air Quality Management/Air Quality Control District, whichever is more restrictive.

MAJOR CLASS III LANDFILLS
FACTSHEETS AND FIGURES

Fact Sheet 3-1: Antelope Valley Recycling and Disposal Facility

1. FACILITY INFORMATION

Owner:	Waste Management of California, Inc.	Operator:	Waste Management of California, Inc.
Address	1200 West City Ranch Road Palmdale, CA 93551	Operating Days:	Monday-Saturday
SWFP No:	19-AA-5624	SWFP Issue Date:	11/16/2011
Last 5-year Review Date:	11/16/2016	5-year Review Due Date:	11/10/2021

2. REMAINING PERMITTED CAPACITY (as of December 31, 2018)

Remaining Permitted Capacity:	12,001,395 tons	16,131,440 cubic yards
Estimated Remaining Life:	22 years (based on maximum permitted rate of disposal of 1,677 tons per day, 307 days per year)	
In-Place Density:	0.75 tons/cubic yard	

3. MAXIMUM PERMITTED DAILY CAPACITY

Daily:	3,600 tons	[4,800 cubic yards]
Yearly Equivalent:	[1,123,200 tons]	[1,497,600 cubic yards]

4. 2018 AVERAGE WASTE QUANTITIES DISPOSED (INCLUDING IMPORT QUANTITIES)

Daily (based on 6 days):	1,677 tons	[2,236 cubic yards]

5. LAND USE/CONDITIONAL USE PERMIT

Permit No.:	98-12	Effective:	06/21/2011	Modified:	01/11/2018

6. WASTE DISCHARGE REQUIREMENTS

Order No.:	6-95-119A2	Effective:	10/10/2001

7. FOC GRANT DATE

10/18/2018

8. PERMITTED WASTE TYPES

Solid Waste

9. FUTURE LAND USE

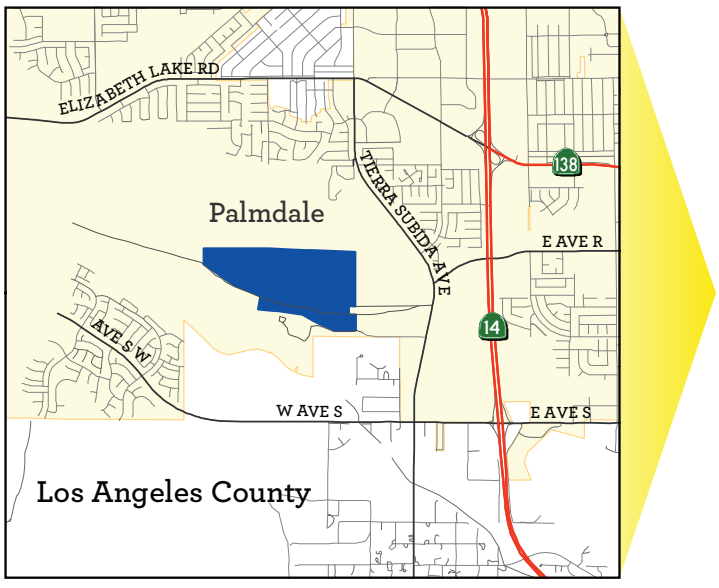
No plans at this time.

10. RESTRICTIONS

There is no wasteshed or restriction on origin of waste. Based on the SWFP, the landfill is permitted to receive 3,600 tpd of MSW and 1,948 tpd of materials for recycling and beneficial use.

11. REMARKS/STATUS

The City of Palmdale approved the expansion of Antelope Valley Landfill, which consolidates Unit 1 and Unit 2, on June 9, 2011.



Note: Information above was provided by the landfill operator by completing the Annual Survey Form or through the Solid Waste Information Management System (SWIMS) as of June 2019. Calculated or assumed quantities are shown in brackets.

Antelope Valley Recycling and Disposal Facility

LEGEND

- Property Boundary
- City Limits
- Existing Disposal Area

N

710 ft.

This map is for planning purposes only. Los Angeles County expressly disclaims any liability for any inaccuracies which may be present in this map.

Source: Los Angeles County Public Works, (Nov. 2005)

Fact Sheet 3-2: Calabasas Landfill

1. FACILITY INFORMATION

Owner:	County of Los Angeles	Operator:	County Sanitation District No. 2 of Los Angeles County
Address	5300 Lost Hills Road Agoura, CA 91301 (Los Angeles County Unincorporated Area)	Operating Days:	Monday-Saturday
SWFP No:	19-AA-0056	SWFP Issue Date:	04/04/2016
Last 5-year Review Date:	03/25/2016	5-year Review Due Date:	08/11/2024

2. REMAINING PERMITTED CAPACITY (as of December 31, 2018)

Remaining Permitted Capacity:	4,908,186 tons	11,071,716 cubic yards
Estimated Remaining Life:	11 years (based on SWFP estimated closure date)	
In-Place Density:	0.443 tons/cubic yard	

3. MAXIMUM PERMITTED DAILY CAPACITY

Daily:	3,500 tons	[7,901 cubic yards]
Yearly Equivalent:	[1,081,500 tons]	[2,441,309 cubic yards]

4. 2018 AVERAGE WASTE QUANTITIES DISPOSED (INCLUDING IMPORT QUANTITIES)

Daily (based on 6 days):	1,030 tons	[2,324 cubic yards]

5. LAND USE/CONDITIONAL USE PERMIT

Permit No.:	5022-(5)	Effective:	08/23/1972	Expiration:	None

6. WASTE DISCHARGE REQUIREMENTS

Order No.:	93-062	R4-2009-0088	Effective:	09/27/1993	07/16/2009
	R4-2006-0007	R4-2011-0052		01/19/2006	03/03/2011

7. FOC GRANT DATE

None

8. PERMITTED WASTE TYPES

Solid Waste

9. FUTURE LAND USE

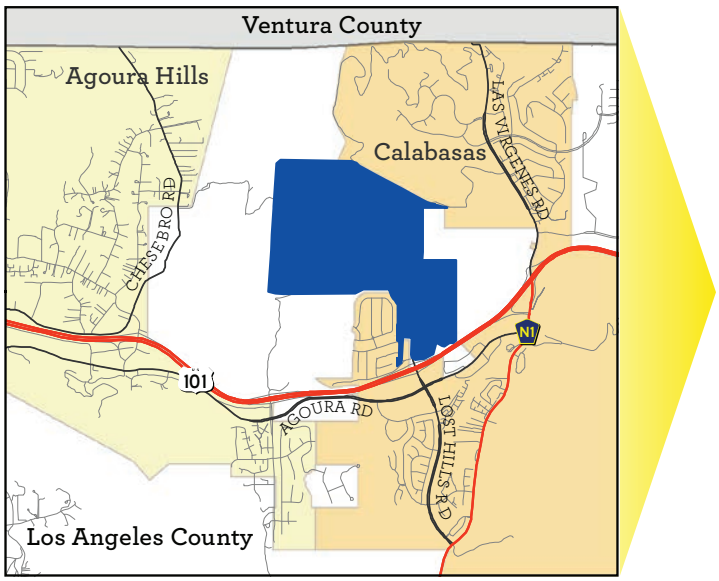
Open space

10. RESTRICTIONS

Origin of waste is limited to that generated in the Calabasas Wasteshed as defined by Los Angeles County Ordinance No. 91-0003.

11. REMARKS/STATUS

Limited to the Calabasas Wasteshed as defined by Los Angeles County Ordinance No. 91-0003.



Note: Information above was provided by the landfill operator by completing the Annual Survey Form or through the Solid Waste Information Management System (SWIMS) as of June 2019. Calculated or assumed quantities are shown in brackets.

Calabasas Landfill

LEGEND

- Property Boundary
- City Limits
- Existing Disposal Area

N

920 ft.

This map is for planning purposes only. Los Angeles County expressly disclaims any liability for any inaccuracies which may be present in this map.

Source: Los Angeles County Public Works, (Nov. 2005)

Fact Sheet 3-3: Chiquita Canyon Landfill

1. FACILITY INFORMATION

Owner:	Waste Connections, Inc.	Operator:	Waste Connections, Inc.
Address	29201 Henry Mayo Drive, Castaic, CA 91384 (Los Angeles County UnincorporatedAarea)	Operating Days:	Monday-Saturday
SWFP No:	19-AA-0052	SWFP Issue Date:	10/19/2018
Last 5-year Review Date:	10/18/2016	5-year Review Due Date:	10/18/2021

2. REMAINING PERMITTED CAPACITY (as of December 31, 2018)

Remaining Permitted Capacity:	59,752,250 tons	[60,294,904 cubic yards]
Estimated Remaining Life:	29 years (based on Conditional Use Permit)	
In-Place Density:	0.991 tons/cubic yard	

3. MAXIMUM PERMITTED DAILY CAPACITY

Daily:	12,000 tons	[12,109 cubic yards]
Weekly:	60,000 tons	[60,544 cubic yards]
Yearly Equivalent:	[3,744,000 tons]	[3,778,002 cubic yards]

4. 2018 AVERAGE WASTE QUANTITIES DISPOSED (INCLUDING IMPORT QUANTITIES)

Daily (based on 6 days):	2,307 tons	[2,328 cubic yards]

5. LAND USE/CONDITIONAL USE PERMIT

Permit No.:	89-081(5)	Effective:	11/17/1997	Expiration:	11/24/2019 or when the maximum capacity is reached, whichever is sooner
Permit No.:	2004-00042-(5)	Effective:	07/25/2017	Expiration:	30 years or July 25, 2047

6. WASTE DISCHARGE REQUIREMENTS

Order No.:	93-062 98-086	R4-2006-0007 R4-2011-0052	Effective:	09/27/1993 11/02/1998 01/19/2006 03/03/2011

7. FOC GRANT DATE

02/16/1998

8. PERMITTED WASTE TYPES

Solid Waste

9. FUTURE LAND USE

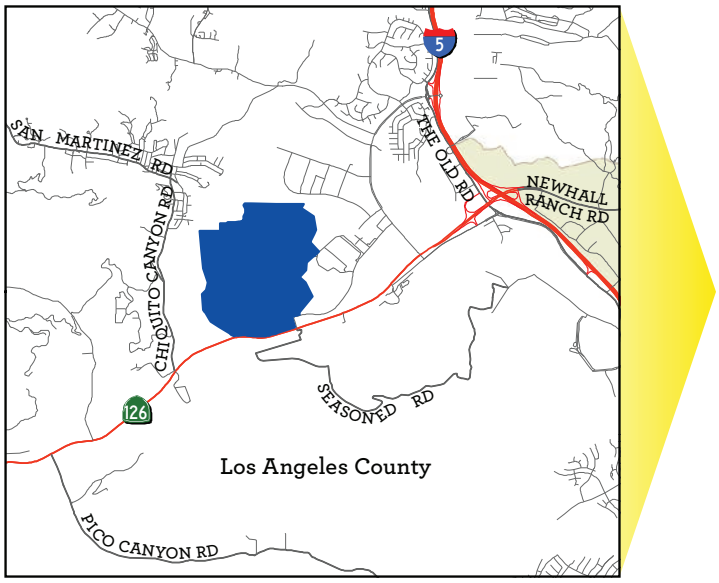
Non-irrigated open space

10. RESTRICTIONS

Landfill cannot accept biosolids (water and wastewater sludge). There is no wasteshed restriction on origin of waste.

11. REMARKS/STATUS

The current Conditional Use Permit 89-081(5) (CUP) expired June 2016 when the landfill reached its fill capacity limits. However, Department of Regional Planning issued a "Clean Hands Waiver" on March 17, 2016, allowing the landfill to continue its operation while processing the new CUP application. On July 25, 2017, the Board of Supervisors approved a new Conditional Use Permit for the Landfill's Expansion Project.



Note: Information above was provided by the landfill operator by completing the Annual Survey Form or through the Solid Waste Information Management System (SWIMS) as of July 2018. Calculated or assumed quantities are shown in brackets.

Chiquita Canyon Landfill

LEGEND

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

N

1,000 ft.

This map is for planning purposes only. Los Angeles County expressly disclaims any liability for any inaccuracies which may be present in this map.

Source: Los Angeles County Works, (Nov. 2005)

Fact Sheet 3-4: Lancaster Landfill and Recycling Center

1. FACILITY INFORMATION

Owner:	Waste Management of California, Inc.	Operator:	Waste Management of California, Inc.
Address	600 East Avenue "F" Lancaster, CA 93535 (Los Angeles County Unincorporated Area)	Operating Days:	Monday-Saturday
SWFP No:	19-AA-0050	SWFP Issue Date:	02/19/2013
Last 5-year Review Date:	02/13/2018	5-year Review Due Date:	02/19/2023

2. REMAINING PERMITTED CAPACITY (as of December 31, 2018)

Remaining Permitted Capacity:	10,231,322 tons	13,641,763 cubic yards
Estimated Remaining Life:	23 years (based on Land Use Permit Restriction)	
In-Place Density:	0.75 tons/cubic yard	

3. MAXIMUM PERMITTED DAILY CAPACITY

Daily:	3,000 tons	[4,000 cubic yards]
Yearly Equivalent:	[936,000 tons]	[1,248,000 cubic yards]

4. 2018 AVERAGE WASTE QUANTITIES DISPOSED (INCLUDING IMPORT QUANTITIES)

Daily (based on 6 days):	376 tons	[501 cubic yards]

5. LAND USE/CONDITIONAL USE PERMIT

Permit No.:	03-170-(5)	Effective:	08/01/2012	Expiration:	10/19/2041 or when limit of fill is reached, whichever occurs first.

6. WASTE DISCHARGE REQUIREMENTS

Order No.:	R6V-2016-0037	Effective:	06/14/2000

7. FOC GRANT DATE

05/18/2013

8. PERMITTED WASTE TYPES

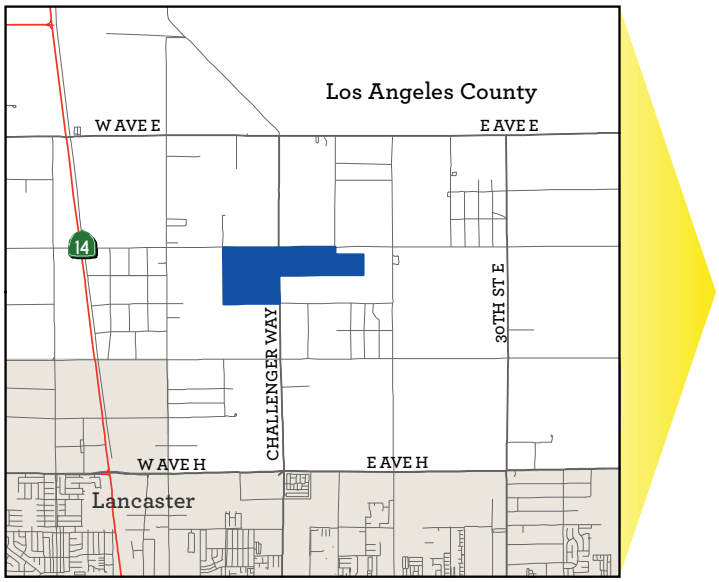
Solid Waste

9. FUTURE LAND USE

Open space

10. RESTRICTIONS

The Landfill cannot accept more than 10 tpd of biosolids (sewage sludge). There is no wasteshed restriction on origin of waste. Based on the SWFP, the landfill accepts 3,000 tpd of refuse and 2,100 tpd of inert debris and beneficial use.



Note: Information above was provided by the landfill operator by completing the Annual Survey Form or through the Solid Waste Information Management System (SWIMS) as of June 2019. Calculated or assumed quantities are shown in brackets.

Lancaster Landfill and Recycling Center

LEGEND

- Property Boundary
- City Limits
- Existing Disposal Area

N

920 ft.

This map is for planning purposes only. Los Angeles County expressly disclaims any liability for any inaccuracies which may be present in this map.

Source: Los Angeles County Public Works, (Nov. 2005)

Figure 3-4: Lancaster Landfill and Recycling Center

Fact Sheet 3-5: Scholl Canyon Landfill

1. FACILITY INFORMATION

Owner:	City of Glendale & County of Los Angeles	Operator:	County Sanitation District No. 2 of Los Angeles County
Address	7721 N. Figueroa St Los Angeles, CA 90041	Operating Days:	Monday-Saturday
SWFP No:	19-AA-0012	SWFP Issue Date:	12/13/2011
Last 5-year Review Date:	12/13/2016	5-year Review Due Date:	12/13/2021

2. REMAINING PERMITTED CAPACITY (as of December 31, 2018)

Remaining Permitted Capacity:	4,294,664 tons	7,084,899 cubic yards
Estimated Remaining Life:	11 years (based on average daily disposal of 1,211 tpd, 309 days per year)	
In-Place Density:	0.593 tons/cubic yard	

3. MAXIMUM PERMITTED DAILY CAPACITY

Daily:	3,400 tons	[5,734 cubic yards]
Yearly Equivalent:	[1,050,600 tons]	[1,771,669 cubic yards]

4. 2018 AVERAGE WASTE QUANTITIES DISPOSED (INCLUDING IMPORT QUANTITIES)

Daily(based on 6 days):	929 tons	[1,567 cubic yards]

5. LAND USE/CONDITIONAL USE PERMIT

Permit No.:	6668-U (Zoning Variance)	Effective:	10/07/1997

6. WASTE DISCHARGE REQUIREMENTS

Order No.:	01-132 R4-2011-0052	Effective:	09/19/2001 03/03/2011

7. FOC GRANT DATE

None

8. PERMITTED WASTE TYPES

Solid Waste

9. FUTURE LAND USE

Open space

10. RESTRICTIONS

The use of the Landfill is restricted by the City of Glendale Ordinance 4780 to the County of Los Angeles cities of Glendale, La Canada Flintridge, Pasadena, South Pasadena, San Marino, and Sierra Madre; the Los Angeles County unincorporated areas of Altadena, La Crescenta, and Montrose; the unincorporated area bordered by the incorporated cities of San Gabriel, Rosemead, Temple City, Arcadia and Pasadena; and the unincorporated area immediately to the north of the City of San Marino bordered by the City of Pasadena on the west, north, and east sides.

Note: Information above was provided by the landfill operator by completing the Annual Survey Form or through the Solid Waste Information Management System (SWIMS) as of June 2019. Calculated or assumed quantities are shown in brackets.

Scholl Canyon Landfill

LEGEND

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

N

1,000 ft.

This map is for planning purposes only. Los Angeles County expressly disclaims any liability for any inaccuracies which may be present in this map.

Source: Los Angeles County Public Works, (Nov. 2005)

Figure 3-5: Scholl Canyon Landfill

Fact Sheet 3-6: Sunshine Canyon City/County Landfill

1. FACILITY INFORMATION

Owner:	Republic Services, Inc.	Operator:	Republic Services, Inc.
Address	14747 San Fernando Road, Sylmar, CA 91342	Operating Days:	Monday-Saturday
SWFP No:	19-AA-2000	SWFP Issue Date:	07/07/2008
Last 5-year Review Date:	12/30/2013	5-year Review Due Date:	12/27/2023

2. REMAINING PERMITTED CAPACITY (as of December 31, 2018)

Remaining Permitted Capacity:	[65,274,183 tons]	74,175,208 cubic yards
Estimated Remaining Life:	19 years (based on the current Conditional Use Permit)	
In-Place Density:	[0.88 tons/cubic yard]	

3. MAXIMUM PERMITTED DAILY CAPACITY

Daily:	12,100 tons	[13,750 cubic yards]
Yearly Equivalent:	[3,775,200 tons]	[4,290,000 cubic yards]

4. 2018 AVERAGE WASTE QUANTITIES DISPOSED (INCLUDING IMPORT QUANTITIES)

Daily (based on 6 days):	7,012 tons	[7,351 cubic yards]

5. LAND USE/CONDITIONAL USE PERMIT

Permit No.:	00-194-(5)	Effective:	02/06/2007	Expiration:	02/06/2037 or when landfill capacity is exhausted, whichever is sooner

6. WASTE DISCHARGE REQUIREMENTS

Order No.:	93-062 R4-2006-0007 R4-2007-0064	R4-2008-0088 R4-2011-0052	Effective:	09/27/1993 01/19/2006 12/06/2007	10/02/2008 03/03/2011

7. FOC GRANT DATE

12/18/2008

8. PERMITTED WASTE TYPES

Solid Waste

9. FUTURE LAND USE

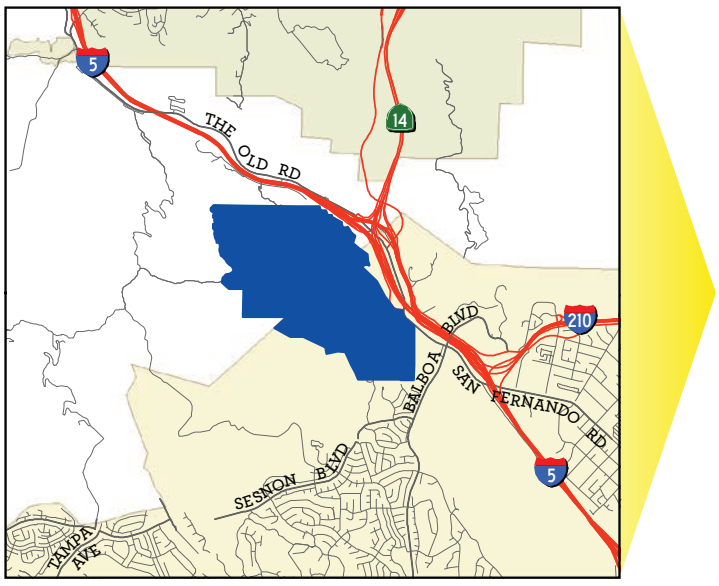
Open space

10. RESTRICTIONS

The Landfill cannot accept incinerator ash or biosolids (sewage sludge). The Landfill is prohibited from accepting any solid waste generated outside the County.

11. REMARKS/STATUS

On December 31, 2008, operations in the Sunshine Canyon County Landfill and the Sunshine Canyon City Landfill were combined into one to what is known as the Sunshine Canyon City/County Landfill.



Note: Information above was provided by the landfill operator by completing the Annual Survey Form or through the Solid Waste Information Management System (SWIMS) as of July 2019. Calculated or assumed quantities are shown in brackets.

Sunshine Canyon City/County Landfill

LEGEND

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

N

1,200 ft.

This map is for planning purposes only. Los Angeles County expressly disclaims any liability for any inaccuracies which may be present in this map.

Source: Los Angeles County Public Works, (Nov. 2005)

Figure 3-6: Sunshine Canyon City/County Landfill

MINOR CLASS III LANDFILLS
FACTSHEETS AND FIGURES

Fact Sheet 3-7: Burbank Landfill No. 3

1. FACILITY INFORMATION

Owner:	City of Burbank - DPW	Operator:	City of Burbank - DPW
Address	3000 North Bel Aire Burbank, CA 91504	Operating Days:	Monday-Friday
SWFP No:	19-AA-0040	SWFP Issue Date:	06/03/1997
Last 5-year Review Date:	07/11/2016	5-year Review Due Date:	07/11/2021

2. REMAINING PERMITTED CAPACITY (as of December 31, 2018)

Remaining Permitted Capacity:	[2,264,430 tons]	4,117,147 cubic yards
Estimated Remaining Life:	35 years (based on the current SWFP estimated closure date)	
In-Place Density:	[0.55 tons/cubic yard]	

3. MAXIMUM PERMITTED DAILY CAPACITY

Daily:	240 tons	[436 cubic yards]
Yearly Equivalent:	[62,400 tons]	[113,455 cubic yards]

4. 2018 AVERAGE WASTE QUANTITIES DISPOSED (INCLUDING IMPORT QUANTITIES)

Daily (based on 6 days):	122 tons	[244 cubic yards]

5. LAND USE/CONDITIONAL USE PERMIT

Permit No.:	2000-16	Effective:	11/13/2000	Expiration:	None

6. WASTE DISCHARGE REQUIREMENTS

Order No.:	93-062 R4-2002-0154	R4-2006-0007 R4-2011-0052	Effective:	09/27/1993 09/26/2002	01/19/2006 03/03/2011

7. FOC GRANT DATE

12/18/1986

8. PERMITTED WASTE TYPES

Solid Waste

9. FUTURE LAND USE

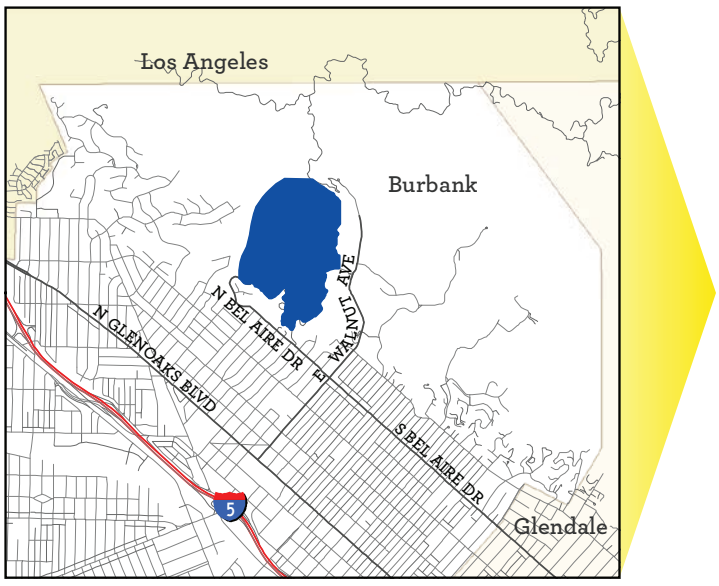
Irrigated Open Space

10. RESTRICTIONS

Origin of waste limited to the City of Burbank and is not open to the public.

11. REMARKS/STATUS

Limited to the City of Burbank use only.



Note: Information above was provided by the landfill operator by completing the Annual Survey Form or through the Solid Waste Information Management System (SWIMS) as of July 2019. Calculated or assumed quantities are shown in brackets.

Burbank Landfill No. 3

LEGEND

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

N

575 ft.

This map is for planning purposes only. Los Angeles County expressly disclaims any liability for any inaccuracies which may be present in this map.

Source: Los Angeles County Public Works, (Nov. 2005)

Fact Sheet 3-8: Pebbly Beach Landfill

1. FACILITY INFORMATION

Owner:	City of Avalon	Operator:	Consolidated Disposal Services dba Seagull Sanitation Systems
Address	1 Dump Road Avalon, CA 90704 (Los Angeles County Unincorporated Area)	Operating Days:	Monday-Sunday
SWFP No:	19-AA-0061	SWFP Issue Date:	04/10/2001
Last 5-year Review Date:	04/30/2015	5-year Review Due Date:	04/30/2020

2. REMAINING PERMITTED CAPACITY (as of December 31, 2018)

Remaining Permitted Capacity:	[34,735 tons]	46,313 cubic yards
Estimated Remaining Life:	10 years (based on Land Use Permit Restriction)	
In-Place Density:	0.75-1.25 tons/cubic yard	

3. MAXIMUM PERMITTED DAILY CAPACITY

Daily:	49 tons	[65 cubic yards]
Yearly Equivalent:	17,885 tons	[23,847 cubic yards]

4. 2018 AVERAGE WASTE QUANTITIES DISPOSED (IMPORT QUANTITIES INCLUDED)

Daily (based on 6 days):	9.7 tons	[13 cubic yards]

5. LAND USE/CONDITIONAL USE PERMIT

Permit No.:	96-162-(4)	Effective:	07/29/1998	Expiration:	07/29/2028

6. WASTE DISCHARGE REQUIREMENTS

Order No.:	R4-2002-0058 R4-2011-0052 R4-2011-0165	Effective:	02/28/2002 03/03/2011 11/07/2011

7. FOC GRANT DATE

01/21/1999

8. PERMITTED WASTE TYPES

Solid Waste

9. FUTURE LAND USE

Open space

10. RESTRICTIONS

There is no wasteshed restriction on origin of waste. However, due to its location on Santa Catalina Island, only the City of Avalon and adjacent unincorporated County areas have access to this facility. Based on the SWFP, no Haz-Mat, designated waste, untreated medical waste, or liquids accepted at the facility. Sewage must be at least 50% solids on sludge.

Note: Information above was provided by the landfill operator by completing the Annual Survey Form or through the Solid Waste Information Management System (SWIMS) as of June 2019. Calculated or assumed quantities are shown in brackets.

Pebbly Beach Landfill

LEGEND

- Property Boundary
- City Limits
- Existing Disposal Area

N

170 ft.

This map is for planning purposes only. Los Angeles County expressly disclaims any liability for any inaccuracies which may be present in this map.

Source: Los Angeles County Public Works, (Nov. 2005)

Fact Sheet 3-9: San Clemente Island Landfill

1. FACILITY INFORMATION

Owner:	U.S. Department of the Navy	Operator:	U.S. Department of the Navy
Address	San Clemente Island, CA	Operating Days:	2 days/week
SWFP No:	19-AA-0063	SWFP Issue Date:	06/24/1997
Last 5-year Review Date:	04/22/2018	5-year Review Due Date:	04/22/2023

2. REMAINING PERMITTED CAPACITY (as of December 31, 2018)

Remaining Permitted Capacity:	[35,650 tons]	285,203 cubic yards
Estimated Remaining Life:	15 years (based on average daily disposal of 9.6 tpd, 104 days per year)	
In-Place Density:	0.125 tons/cubic yard	

3. MAXIMUM PERMITTED DAILY CAPACITY

Daily:	9.6 tons	[77 cubic yards]
Yearly Equivalent:	991 tons	[7,928 cubic yards]

4. 2018 AVERAGE WASTE QUANTITIES DISPOSED (INCLUDING IMPORT QUANTITIES)

Daily (based on 6 days):	3.42 ton	[27.36 cubic yards]

5. LAND USE/CONDITIONAL USE PERMIT

Not Applicable

6. WASTE DISCHARGE REQUIREMENTS

Order No.:	R4-2004-0057 R4-2010-0045	Effective:	04/01/2004 03/04/2010

7. FOC GRANT DATE

None

8. PERMITTED WASTE TYPES

Solid Waste

9. FUTURE LAND USE

Open space. None.

10. RESTRICTIONS

This landfill is used solely by the U.S. Department of the Navy. SWFP is still under review by the CalRecycle as they address new Title 27 methane monitoring requirements.

Note: Information above was provided by the landfill operator by completing the Annual Survey Form or through the Solid Waste Information Management System (SWIMS) as of June 2019. Calculated or assumed quantities are shown in brackets.

San Clemente Island Landfill

LEGEND

- Property Boundary
- City Limits
- Existing Disposal Area

N

170 ft.

This map is for planning purposes only. Los Angeles County expressly disclaims any liability for any inaccuracies which may be present in this map.

Source: Los Angeles County Public Works, (Nov. 2005)

Fact Sheet 3-10: Whittier (Savage Canyon) Landfill

1. FACILITY INFORMATION

Owner:	City of Whittier	Operator:	City of Whittier - DPW
Address	13919 E. Penn St. Whittier, CA 90602	Operating Days:	Monday-Saturday
SWFP No:	19-AH-0001	SWFP Issue Date:	10/30/2013
Last 5-year Review Date:	10/30/2018	5-year Review Due Date:	10/30/2023

2. REMAINING PERMITTED CAPACITY (as of December 31, 2018)

Remaining Permitted Capacity:	4,580,480 tons	[7,634,133 cubic yards]
Estimated Remaining Life:	37 years (based on the current SWFP estimated closure date)	
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. 2018 AVERAGE WASTE QUANTITIES DISPOSED (INCLUDING IMPORT QUANTITIES)

Daily (based on 6 days):	296 tons	[493 cubic yards]

5. LAND USE/CONDITIONAL USE PERMIT

Permit No.:	City Resolution No. 4907	Effective:	08/23/1977	Expiration:	Completion of project

6. WASTE DISCHARGE REQUIREMENTS

Order No.:	93-062	R4-2006-0080	Effective:	09/27/1993	10/24/2006
	R4-2006-0007	R4-2011-0052		01/19/2006	03/03/2011

7. FOC GRANT DATE

11/30/1978

8. PERMITTED WASTE TYPES

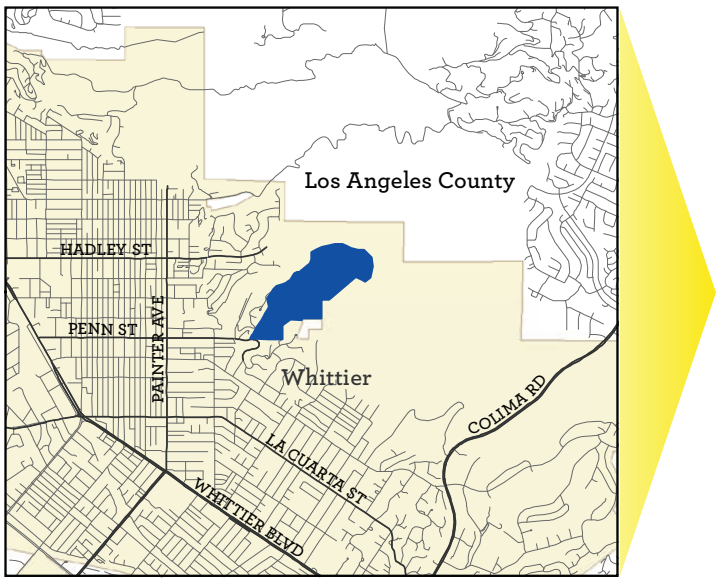
Mixed municipal, Construction/demolition, Industrial, Green Materials, and Inert waste.

9. FUTURE LAND USE

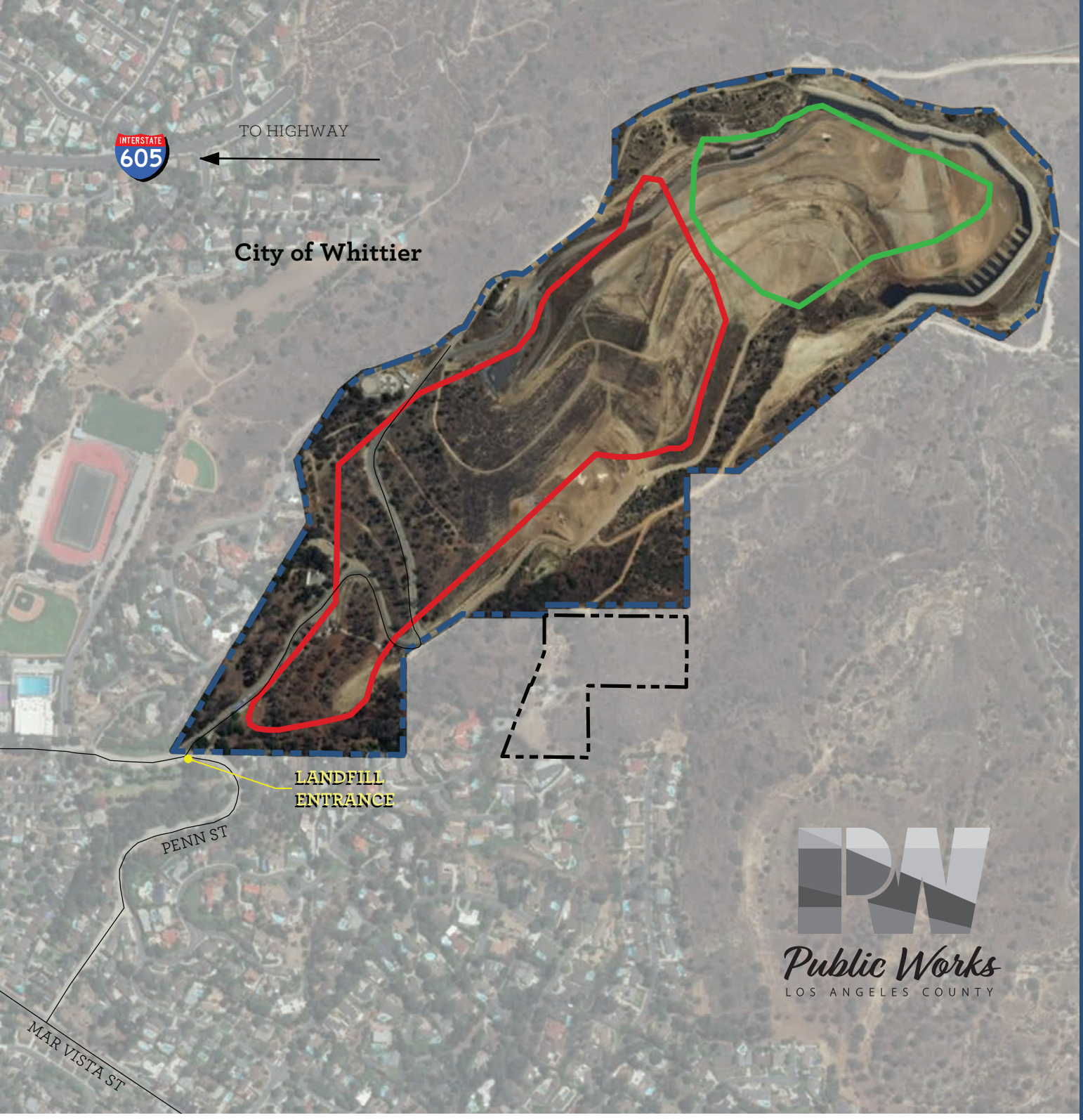
Open space

10. RESTRICTIONS

Hazardous, radioactive, liquid, or medical waste are all prohibited per Chapter 6.1, Division 20 of California Health and Safety Code.



Note: Information above was provided by the landfill operator by completing the Annual Survey Form or through the Solid Waste Information Management System (SWIMS) as of June 2019. Calculated or assumed quantities are shown in brackets.



Whittier (Savage Canyon) Landfill

LEGEND

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

N

575 ft.

This map is for planning purposes only. Los Angeles County expressly disclaims any liability for any inaccuracies which may be present in this map.

Source: Los Angeles County Public Works, (Nov. 2005)

Figure 3-10: Whittier (Savage Canyon) Landfill

INERT WASTE LANDFILL

FACTSHEETS AND FIGURES

Fact Sheet 3-11: Azusa Land Reclamation Company Landfill

1. FACILITY INFORMATION

Owner:	Azusa Land Reclamation Inc.	Operator:	Azusa Land Reclamation Inc.
Address	1201 West Gladstone Street Azusa, CA 91702	Operating Days:	Monday-Friday
SWFP No:	19-AA-0013	SWFP Issue Date:	11/12/2014
Last 5-year Review Date:	03/10/2016	5-year Review Due Date:	03/10/2021

2. REMAINING PERMITTED CAPACITY (as of December 31, 2018)

Remaining Permitted Capacity:	57,716,118 tons	[46,172,894 cubic yards]
Estimated Remaining Life:	28 years (based on the current SWFP estimated closure date)	
In-Place Density:	[1.25 tons/cubic yard]	

3. MAXIMUM PERMITTED DAILY CAPACITY

Daily:	6,500 tons	[5,200 cubic yards]
Yearly Equivalent:	[2,028,000 tons]	[1,622,400 cubic yards]

4. 2018 AVERAGE WASTE QUANTITIES DISPOSED (INCLUDING IMPORT QUANTITIES)

Daily (based on 6 days):	1,358 tons	[1,086 cubic yards]

5. LAND USE/CONDITIONAL USE PERMIT

Permit No.:	Owner Participation Agreement No.1 (incorporated CUP No. C-151 of 4/9/75)	Effective:	01/27/1984	Expiration:	None

6. WASTE DISCHARGE REQUIREMENTS

Order No.:	R4-2009-0098	Effective:	09/03/2009

7. FOC GRANT DATE

05/16/1996

8. PERMITTED WASTE TYPES

Inert Solid Waste

9. FUTURE LAND USE

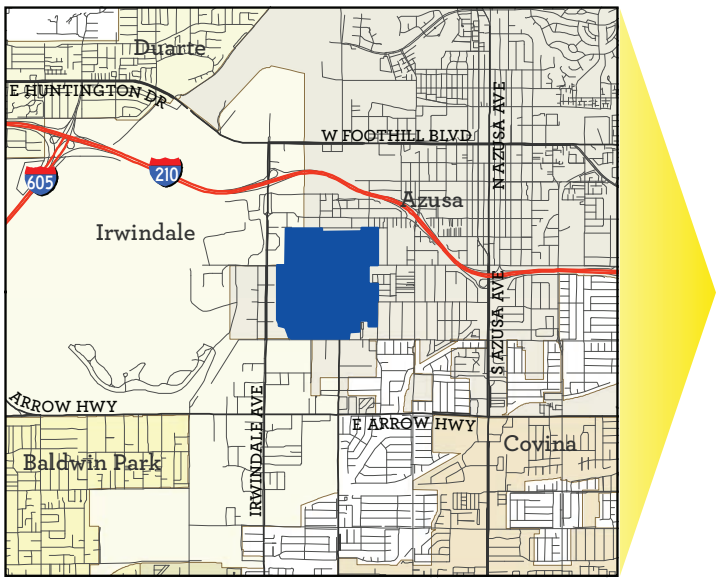
Open space

10. RESTRICTIONS

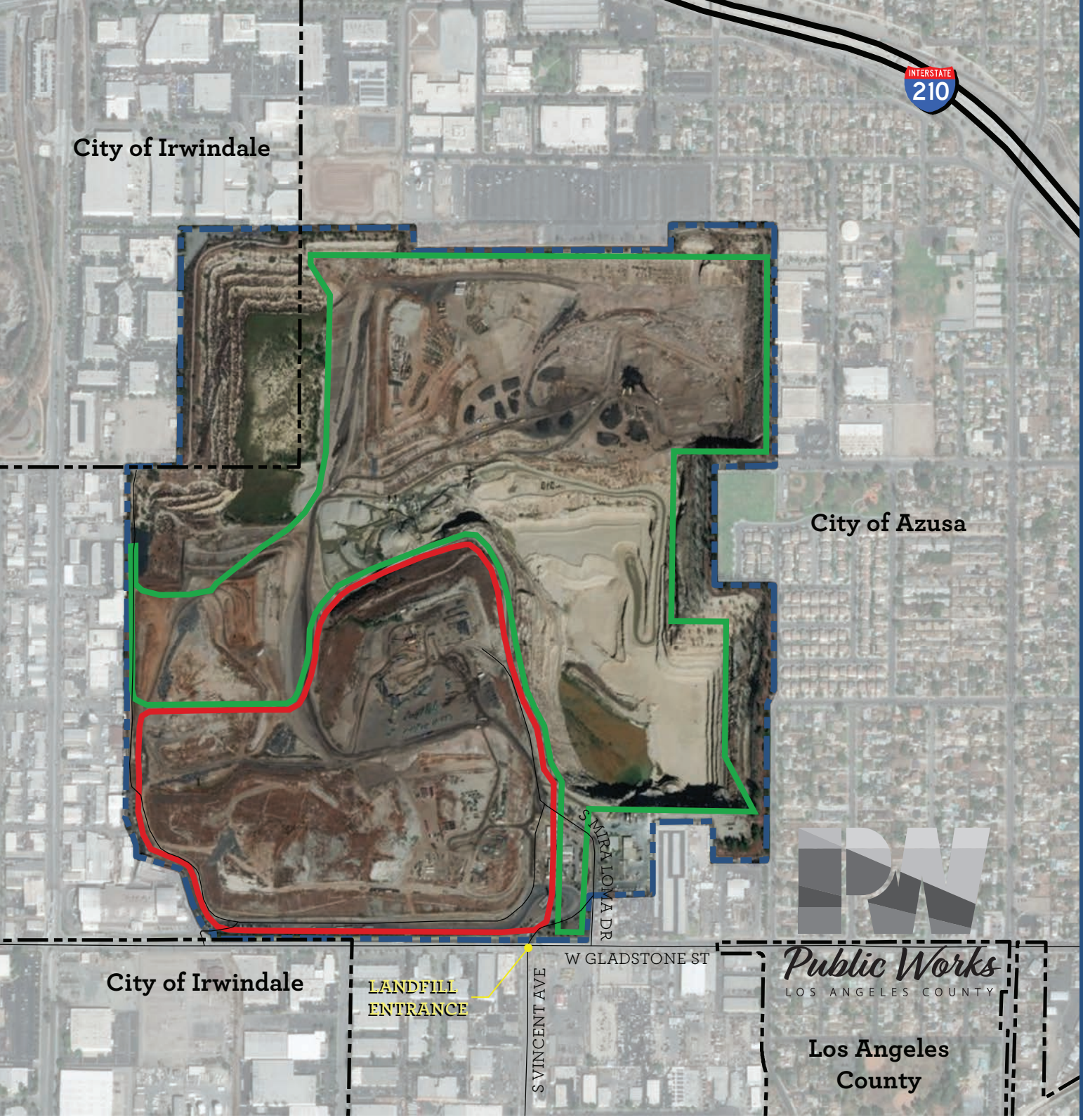
6,500 tpd per SWFP. Only accepts inert solid waste.

11. REMARKS/STATUS

By Court Order, on October 2, 1996, the California Regional Water Quality Control Board-Los Angeles region ordered the Azusa Land Reclamation Landfill to stop accepting Municipal Solid Waste. 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.



Note: Information above was provided by the landfill operator by completing the Annual Survey Form or through the Solid Waste Information Management System (SWIMS) as of June 2019. Calculated or assumed quantities are shown in brackets.



Azusa Land Reclamation Company Landfill

LEGEND

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

N

690 ft.

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Source: Los Angeles County Public Works, (Nov. 2005)

TRANSFORMATION FACILITIES

FACTSHEETS AND FIGURES

ftp://dpwftp.co.la.ca.us/epd/cse/CSE%20Prelim%20Draft%20June%202020%20-%20Final-Print/

Fact Sheet 3-12: Commerce Refuse-to-Energy Facility (CREF) (closed as of 6/26/2018)

1. FACILITY INFORMATION

Owner:	Commerce Refuse-to-Energy Authority (City of Commerce and County Sanitation Districts of Los Angeles County)	Operator:	County Sanitation District No. 2 of Los Angeles County
Address	5926 Sheila Street Commerce, CA 90040	Operating Days:	Monday-Friday (receive) Monday-Sunday (process)
SWFP No:	19-AA-0506	SWFP Issue Date:	07/09/1997
Last 5-year Review Date:	08/15/2012	5-year Review Due Date:	08/15/2017

2. MAXIMUM PERMITTED DAILY CAPACITY

Daily:	1,000 tons (SWFP Requirement)
Weekly:	2,800 tons (SWFP Requirement)

3. 2018 AVERAGE WASTE QUANTITIES DISPOSED (INCLUDING IMPORT QUANTITIES)

Daily Received:	331 tons (based on 6 days)	Daily Processed:	293 tons

4. LAND USE/CONDITIONAL USE PERMIT

Not Applicable

5. WASTE DISCHARGE REQUIREMENTS

Not Applicable

6. FOC GRANT DATE

10/20/1983

7. PERMITTED WASTE TYPES

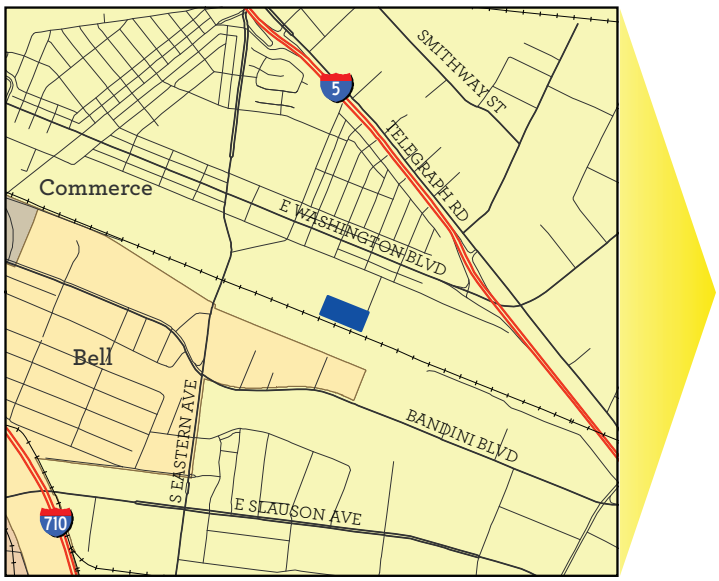
Solid Waste

8. FUTURE LAND USE

Not applicable

9. RESTRICTIONS

Facility requires high energy content waste. The City of Commerce Planning Commission made a written determination that the facility is consistent with the City's Plan, and the adjacent zoning and surrounding land use is compatible with its operation.



Note: Information above was provided by the landfill operator by completing the Annual Survey Form or through the Solid Waste Information Management System (SWIMS) as of July 2018. Calculated or assumed quantities are shown in brackets.

Figure 3-12: Commerce Refuse-to-Energy Facility (CREF) (closed as of 6/26/2018)

LEGEND

Property Boundary

City Limits

N

190 ft.

This map is for planning purposes only. Los Angeles County expressly disclaims any liability for any inaccuracies which may be present in this map.

Source: Los Angeles County Public Works, (Nov. 2005)

Fact Sheet 3-13: Southeast Resource Recovery Facility (SERRF)

1. FACILITY INFORMATION

Owner:	Southeast Resource Recovery Facility Authority, a joint powers authority consisting of the City of Long Beach and the Los Angeles County Sanitation District No. 2	Operator:	City of Long Beach
Address	120 Henry Ford Avenue Long Beach, CA 90802	Operating Days:	Monday-Friday (receive) Monday-Sunday (process)
SWFP No:	19-AK-0083	SWFP Issue Date:	08/19/2015
Last 5-year Review Date:	08/27/2014	5-year Review Due Date:	07/29/2019

2. MAXIMUM PERMITTED DAILY CAPACITY

Daily: 2,240 tons (SWFP Requirement)

3. 2018 AVERAGE WASTE QUANTITIES DISPOSED (INCLUDING IMPORT QUANTITIES)

Daily Received: 1,196 tons (based on 6 days) Daily Processed: 1,194 tons

4. LAND USE/CONDITIONAL USE PERMIT

Permit No.: HDP-84174

5. WASTE DISCHARGE REQUIREMENTS

Not Applicable

6. FOC GRANT DATE

09/18/1997

7. PERMITTED WASTE TYPES

Solid Waste

8. FUTURE LAND USE

Not Applicable

9. RESTRICTIONS

There is no wasteshed or restriction on origin of waste. 2,240 tpd per SWFP.

10. REMARKS/STATUS

SERRF will continue to operate until June 2024 at its current average daily rate during the planning period. The city of Long Beach has announced an amended agreement to provide for the continued operation of SERRF and allow for opportunities to process higher-value waste. The owner and operator of SERRF has indicated that there are no plans to increase the permitted daily capacity.

Note: Information above was provided by the landfill operator by completing the Annual Survey Form or through the Solid Waste Information Management System (SWIMS) as of June 2019. Calculated or assumed quantities are shown in brackets.

LEGEND

Property Boundary

City Limits

N

190 ft.

This map is for planning purposes only. Los Angeles County expressly disclaims any liability for any inaccuracies which may be present in this map.

Source: Los Angeles County Works, (Nov. 2005)

Figure 3-13: Southeast Resource Recovery Facility (SERRF)

Out-of-County Landfill

FACTSHEET AND FIGURE

Fact Sheet 3-14: Mesquite Regional Landfill

1. FACILITY INFORMATION

Owner:	County of Los Angeles Sanitation District 2	Operator:	County of Los Angeles Sanitation District 2
Address	6502 E Hwy 78, Brawley, CA 92227	Operating Days:	Not yet operational
SWFP No:	13-AA-0026	SWFP Issue Date:	04/08/1997
Last 5-year Review Date:	10/03/2016	5-year Review Due Date:	10/03/2021

2. REMAINING PERMITTED CAPACITY (as of December 31, 2018)

Remaining Permitted Capacity:	[660,000,000 tons]	[1,100,000,000 cubic yards]
Estimated Remaining Life:	109 years	
In-Place Density:	0.60 tons/cubic yard	

3. MAXIMUM PERMITTED CAPACITY

Daily:	20,000 tons	[33,333 cubic yards]
Yearly Equivalent:	[7.3 million tons]	[12.2 million cubic yards]

4. 2018 AVERAGE WASTE QUANTITIES DISPOSED

Daily: Not yet operational

5. LAND USE/CONDITIONAL USE PERMIT

Permit No.:	NO. 060003	Effective:	04/27/2011	Expiration:	To Be Determined

6. WASTE DISCHARGE REQUIREMENTS

Order No.:	R7-2009-0003	Effective:	06/18/2009

7. PERMITTED WASTE TYPES

Solid Waste

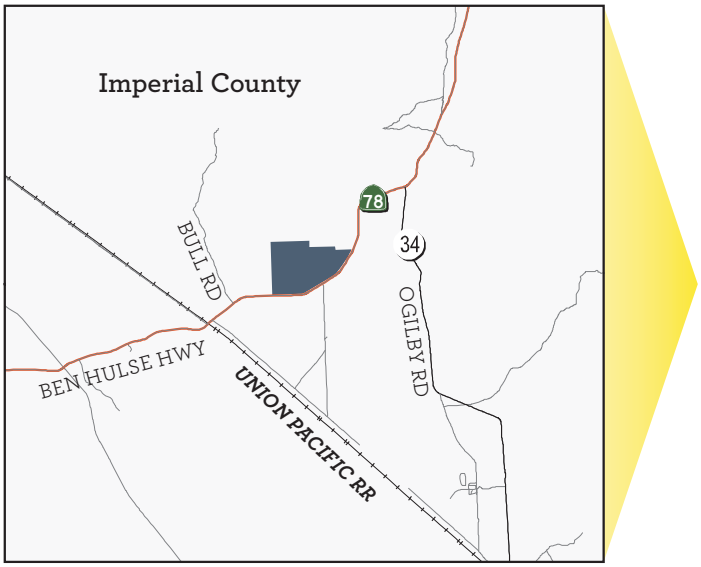
8. FUTURE LAND USE

Disposal

9. RESTRICTIONS

In February, 2007, the Sanitation Districts submitted an application to Imperial County to amend the Mesquite Regional Landfill CUP for the receipt of up to 4,000 tpd of municipal solid waste by truck. Once the waste-by-rail system is operational, the ability to receive waste by truck will provide operational flexibility with the ability to ramp up until enough tonnage is received to make up a unit train.

Imperial County Planning and Development Services issued a Notice of Availability of the Final Subsequent EIR on October 06, 2010. The Board of Supervisors held a public hearing on the project on April 05, 2011, and subsequently approved the CUP. The Sanitation Districts also obtained a revised Solid Waste Facility Permit (SWFP) from CalRecycle/Local Enforcement Agency on October 01, 2011 for truck haul and other entitlements granted by the new CUP.



Notes:
a. Calculated or assumed quantities are shown in brackets.

LEGEND

- Property Boundary
- Existing Disposal Area

N

5,100 ft.

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Source: Los Angeles County Public Works, (Nov. 2005)

Figure 3-14: Mesquite Regional Landfill

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4

Current Disposal Rate And Assessment Of Disposal Capacity Needs

LOS ANGELES COUNTY SOLID WASTE MANAGEMENT 2018

DISPOSAL

10,482,809

Tons of Los Angeles County Waste Disposed

COUNTY DETAILS

4,100
Square Miles

88
Cities and Various Unincorporated County Communities

5.6
Pounds/Person/Day is the Disposal Rate

29.9
Million Tons of Waste Generated

10.35
Million People Make Up the Population

163.39
Million Tons is the Estimated Remaining Class III Landfill Capacity In-County

2018 IN-COUNTY SOLID WASTE FACILITIES

10
Inert Debris Engineered Fill Operations

10
Class III Landfills

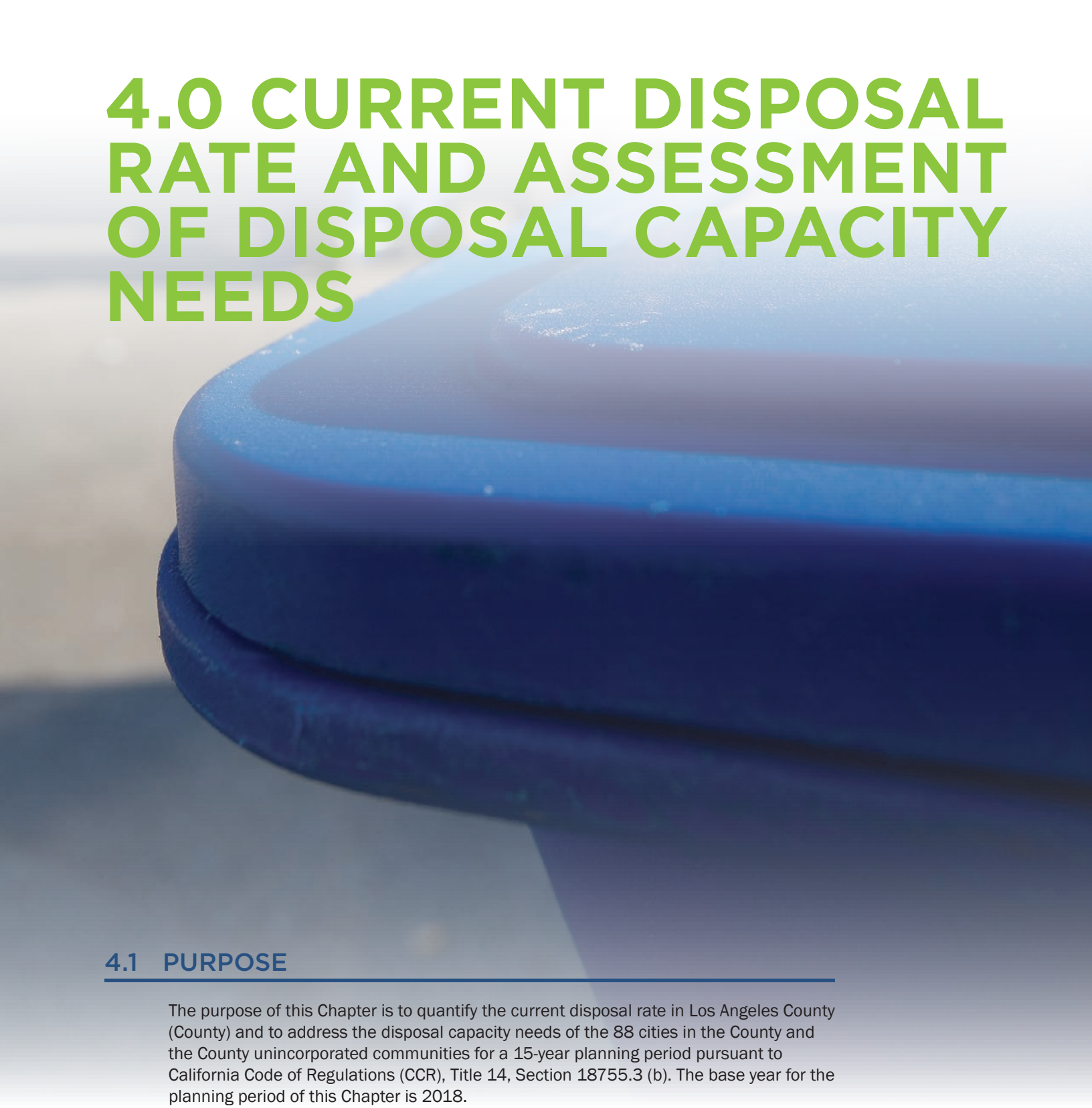
2
Transformation Facilities

1
Permitted Inert Waste Landfill

SOLID WASTE DISPOSAL DISTRIBUTION

46%	4,995,296 tons per year	In-County Class III Landfills
48%	5,120,871 tons per year	Out-of-County Class III Landfill Exports
3%	366,642 tons per year	Waste-to-Energy Facilities
3%	291,877 tons per year	Permitted Inert Waste Landfill

4.0 CURRENT DISPOSAL RATE AND ASSESSMENT OF DISPOSAL CAPACITY NEEDS



4.1 PURPOSE

The purpose of this Chapter is to quantify the current disposal rate in Los Angeles County (County) and to address the disposal capacity needs of the 88 cities in the County and the County unincorporated communities for a 15-year planning period pursuant to California Code of Regulations (CCR), Title 14, Section 18755.3 (b). The base year for the planning period of this Chapter is 2018.

The specific requirements for the content of this chapter are drawn from CCR, Title 14, Division 7, Chapter 9, Article 6.5, Sections 18755 and 18755.3, and discussed in Section 4.3 of this Chapter.

4.2 DEFINITIONS

Definitions of key terms used in this Chapter are included when referenced. For a more complete listing of acronyms and definitions, please refer to the List of Acronyms and Glossary of Terms at the beginning and end of this document, respectively.

4.3 SPECIFIC REQUIREMENTS

CCR, Title 14, Section 18755.3, requires the following:

(a) Each county and regional agency, 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 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; and

(3) The disposal capacity in cubic yards and in tons in any year the Siting Element is revised.

(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 in 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.

4.4 DISPOSAL QUANTITIES AND CAPACITY

4.4.1 Disposal Quantities and Capacity Methodology

4.4.1.1 1990 Disposal Quantities and Capacity Study

In accordance with the requirements of CCR, Title 14, Section 18777, in March 1991, the Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force (Task Force) completed a study that quantified the amount of solid waste disposed at landfills and transformation facilities located in the County and projected the remaining permitted combined capacity of these facilities. A summary of the study was submitted to the former California Integrated Waste Management Board ((CIWMB); currently California Department of Resources Recycling and Recovery (CalRecycle) in a report dated March 28, 1991. A copy of the Report is provided in **Appendix 4A**.

4.4.1.2 Integrated Solid Waste Management Information System

Prior to the current Disposal Reporting System (DRS), Los Angeles County Public Works (Public Works) established the Integrated Solid Waste Management Information System (ISWMIS), for tracking solid waste disposal quantities at landfills and transformation facilities based on the monthly Solid Waste Management Fee invoices the facility operators submitted on a quarterly basis to Public Works.

Key Terms

Disposal
Defined in PRC, Section 40192 as: "(a) Except as provided in subdivisions (b) and (c),'solid waste disposal' 'disposal,' or 'dispose' means the final deposition of solid waste onto land, into the atmosphere, or into the waters of the state. (b) For purposes of Part 2 (commencing with Section 40900), 'solid waste disposal,' 'dispose,' or 'disposal' means the management of solid waste through landfill disposal, transformation, or Engineered Municipal Solid Waste (EMSW) conversion, at a permitted solid waste facility, unless the term is expressly defined otherwise. (c) For the purposes of Chapter 16 (commencing with Section 42800) and Chapter 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 47901) of Part 7, 'solid waste disposal,' 'dispose,' or 'disposal' means the final deposition of solid wastes onto the land. Also defined in CCR, Title 14, Section 18720 (17) as "the management of solid waste through landfilling or transformation at permitted solid waste facility."

Disposal Capacity
Defined in CCR, Title 14, Section 18720 (18) 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."

These invoices were audited periodically and compared with the quantities landfill and transformation facility operators report to Local Enforcement Agencies (LEA) and other regulatory agencies.

Solid waste facility operators submitted routing and diversion information from solid waste facilities each month, resulting in thousands of data entry points on a quarterly basis. The information was manually entered into an internal database and resulting reports were mailed to CalRecycle and over 300 governmental agencies involved in the solid waste disposal reporting process.

4.4.1.3 Solid Waste Disposal Reporting System

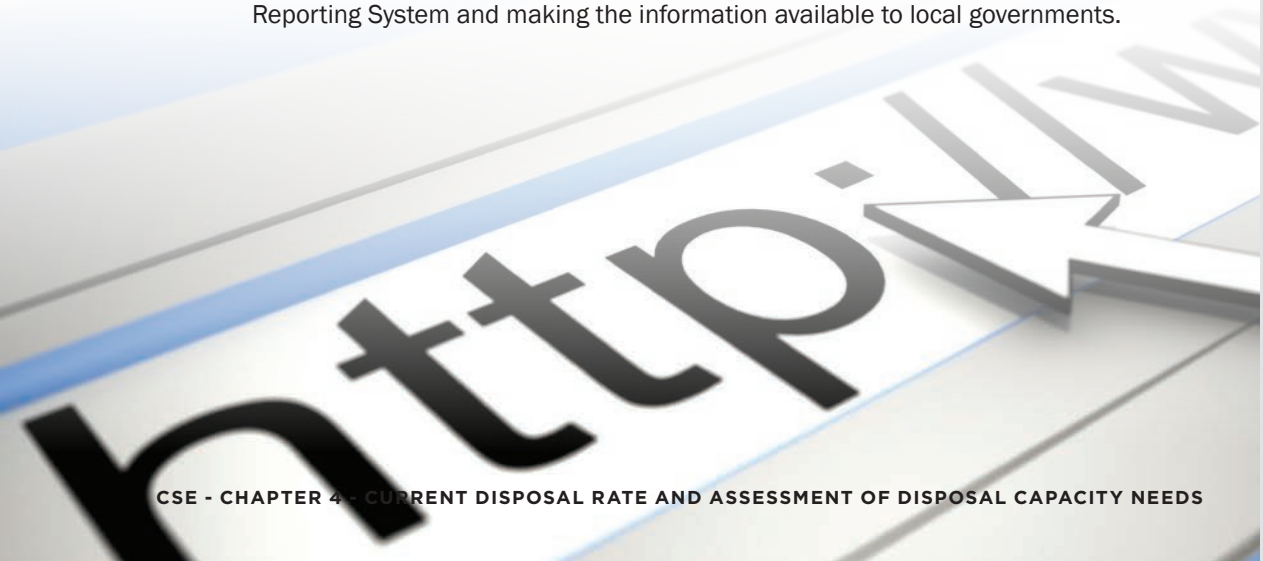
On October 27, 1994, CalRecycle adopted regulations for the current Solid Waste Disposal Reporting System, pursuant to CCR, Title 14, Sections 18800 through 18813, as amended, and PRC, Section 41821.5. Beginning January 1995, the regulations required all solid waste **disposal facility** operators/owners to provide information regarding the quantities of waste disposed at their facilities by individual jurisdictions on a quarterly basis to Public Works. Public Works in turn reports the information regarding the amount of waste disposed at each facility during the quarter to each jurisdiction.

The data obtained from the DRS served as the basis for all jurisdictions to measure their individual waste disposal reduction goals. This data was also used in the Countywide Siting Element (CSE) to determine the 2018 disposal quantities (see Section 4.4.4) and to project waste generation quantities (see Section 4.9) for the 2018-2033 **planning period**.

4.4.1.4 Solid Waste Information Management System

In 2006, Public Works launched an Internet portal Solid Waste Information Management System (SWIMS) that allows governmental agencies, the public, and solid waste industry to conveniently access information online (see www.LACountySwims.org) related to solid waste including, solid waste facilities, waste disposal data, and methane producing sites in Los Angeles County. The Information in SWIMS empowers the public to make environmentally sustainable choices in managing waste, provides the public opportunities to gain knowledge and awareness about solid waste management activities impacting their communities, and encourages the public to participate in building sustainable communities. Local governments use the information to evaluate the effectiveness of their solid waste diversion programs and efforts and identify disposal trends to plan for the future of solid waste management. The solid waste industry uses the information to conduct market research and improve waste collection and processing services. In addition, applicants of land use development projects have also found the information helpful in determining their projects' impacts on solid waste capacities.

Public Works is the local agency responsible for compiling disposal information for the County of Los Angeles, from haulers and solid waste facility operators within the County. Public Works is also responsible for submitting the data to CalRecycle's Disposal Reporting System and making the information available to local governments.



Key Terms

Disposal Facility
Defined in PRC Section 40121 as "a facility or location where disposal of solid waste occurs or an EMSW conversion facility."

Planning Period
Refers to the 15-year planning period defined to begin with the year in which the CSE is prepared or revised. For the purpose of the CSE, "Planning Period" refers to the period beginning in the year 2018 and ending in the year 2033.

Key Terms

In-Place Solid Waste Density or Compaction Rate
Refers to the density in pounds per cubic yard of solid waste (excluding cover materials used) deposited in a landfill after it has been compacted. Throughout the CSE, the compaction rate listed has been provided by the landfill operator. When a site-specific density is not available, an in-place solid waste density/compaction rate of 1,200 pounds per cubic yard is assumed for Class III landfills, 3,000 pounds per cubic yard for inert waste landfills, and 900 pounds per cubic yard for material recovery facilities and transfer stations.

4.4.2 1990 Disposal Quantities and Capacity

As discussed in Section 4.4.1.1, in March 1991, the Task Force completed a study that quantified the amount of solid waste disposed at landfills and transformation facilities located in the County and projected the remaining permitted combined capacity of these facilities. An overview of the study is provided below.

4.4.2.1 1990 Disposal Quantities

In 1990, the residents/businesses of the County disposed of approximately 15.9 million tons of solid waste at the then-existing landfills and transformation facilities within the County. Of this amount, approximately 13.5 million tons (85 percent) were disposed at 19 permitted Class III landfills; 0.3 million tons (two percent) were managed by two transformation facilities (excluding 0.15 million tons of residual ash that was landfilled); and 2.1 million tons (13 percent) were disposed at the then "unclassified landfills"[1]. A list of the Class III landfill facilities, and disposal quantities for each facility, is provided in the March 28, 1991, report to CalRecycle (see Appendix 4A).

The above quantities translated into a 1990 average disposal rate of approximately 51,000 tons per day (tpd) (six days/week) Countywide; 43,245 tpd (85 percent) at Class III landfills; 1,000 tpd (two percent) at transformation facilities (excluding 500 tons of ash that was landfilled); and 6,755 tpd (13 percent) at a permitted inert waste landfill.

4.4.2.2 1990 Remaining Permitted Disposal Capacity

The Task Force established that the projected remaining permitted disposal capacity for Class III landfills as of January 1, 1991, was at approximately 99 million tons (156 million cubic yards based on the **in-place solid waste density/compaction rate** provided by landfill operators). The analysis was based on various data collected by Public Works from facility operators and site-specific permit criteria established by local land use agencies, LEAs, California Regional Water Quality Control Boards, and CalRecycle. A summary of the data collected and various permit limitations is also shown on **Table 4-1**.

The Task Force established that the estimated remaining permitted disposal capacity of Class III landfills as of January 1, 1990, was at approximately 112.15 million tons (177 million cubic yards), which was the sum of the remaining permitted capacity as of January 1, 1991, and the total quantities disposed during the 1990 calendar year.

1 "Landfills" previously referred to as "unclassified landfills" are now referred to as "inert waste landfills."

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 Landfills	SWFP[1] No.	Days in Operation (per week)	Jan. 1991 SWFP Daily Capacity	CUP[2]/LUP[3] Daily Capacity	1990 Average Daily Tonnage (6 days/wk)	Quantity of Municipal Solid Waste Disposed in Year 1990	Projected Remaining Permitted Capacity (effective Jan. 1, 1991)		Estimated Remaining Capacity (effective Jan. 1, 1990)	
			Tons	Tons	Tons	Tons (Millions)	Tons (Millions)	Cubic Yards[4] (Millions)	Tons (Millions)	Cubic Yards[4] (Millions)
Antelope Valley	19-AA-0009	7	350	-	400	0.125	0.925	2.6	1.05	3
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[5]	-	9,744	3.04	15.96	23.8	19	28.3
Bradley West	19-AR-0008	6	7,000	9,500	1,923	0.6	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	11.3	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[6]	4,000	3,109	0.97	4.2	7	5.2	8.6
Pebbly Beach	19-AA-0061	6	30	-	10	0.003	0.097	0.16	0.1	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	0.16
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	20
Spadra	19-AA-0015	6	3,000	-	2,724	0.85	6.95	9.93	7.8	11.14
Sunshine Canyon	19-AR-0002	6	7,000	6,000	3,141	0.98	0.4	1.64	1.4	5.66
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	6.5	10.8
TOTAL			**63,950[7]**	**39,200**	**43,245**	**13.49**	**98.65**	**156.08**	**112.15**	**177.42**

1 "SWFP" means Solid Waste Facility Permit. SWFP No. is same as the Solid Waste Information System (SWIS) Number.

2 "CUP" means Conditional Use Permit.

3 "LUP" means Land Use Permit.

4 Based on in-place solid waste density provided by landfill operators.

5 Daily capacity established in June 1990; Notice and Order as amended by the City of West Covina's Local Enforcement Agency.

6 Daily capacity established by Report of Disposal Site Information and Courts.

7 Average daily tonnage, Monday through Friday.

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

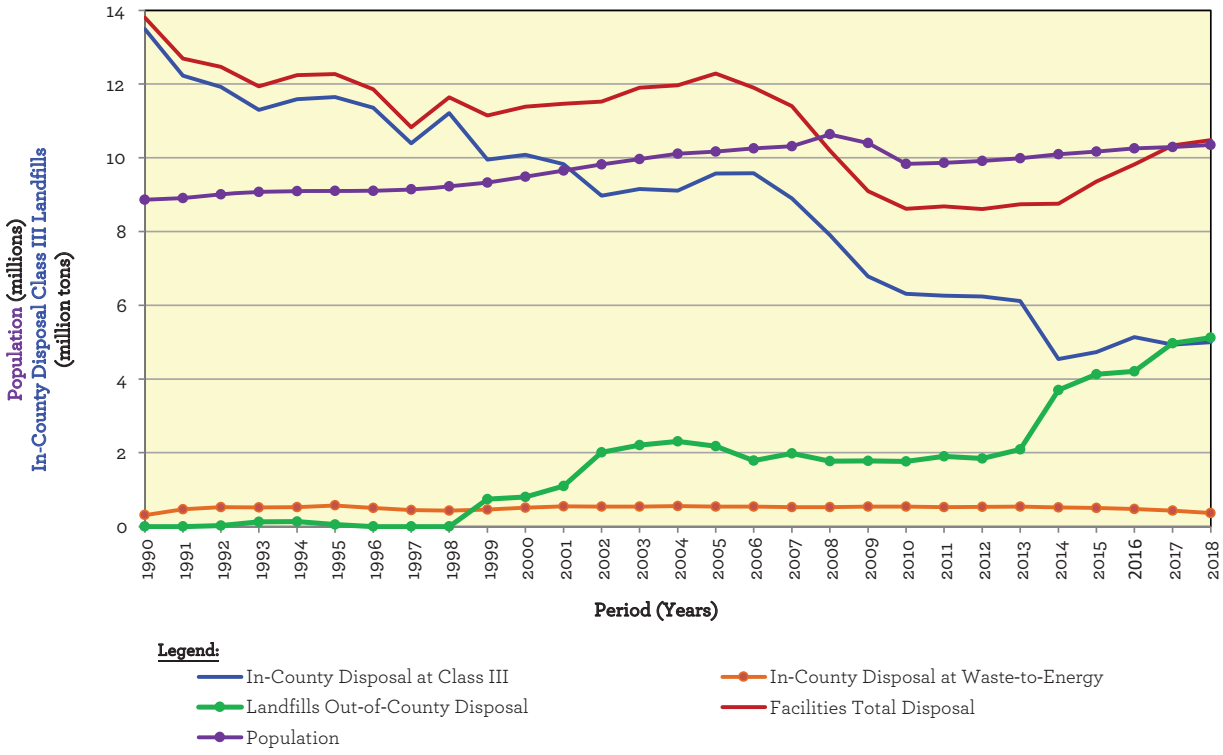
Source: Los Angeles County Public Works.

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)

4.4.3 1990-2018 Disposal Trends

The reported disposal quantities during this period are summarized on a yearly basis in **Figure 4-1**, and **Tables 4-2** (in tons) and **4-3** (in cubic yards). Since, the export rate for 1990, 1991, 1996, 1997, and 1998, and the import rate for 1990 through 1993 are not available, the amounts were not included in the tables for determining the trends for 1990 through 1993 and 1996 through 1998.

FIGURE 4-1: Graph of Los Angeles County Population and Solid Waste Disposal Trend (1990-2018)



1 In-County disposal data at Class III landfills for the period 1990-1995 includes waste imported from jurisdictions outside the County. 1996-1998 data does not include waste imported from jurisdictions outside the County.

2 In-County disposal data at transformation facilites for the period 1990-1995 includes waste imported from jurisdictions outside the County. Data for the period 1996-1998 does not include waste imported from jurisdictions outside the County. 1990 excludes 500 tons/day of ash which were landfilled; for other years, ash has been diverted from disposal.

3 Out-of-County disposal data for the period 1990-1991 and 1996-1998 is not available. There is no record per SWIMS.

FIGURE 4-1: Graph of Los Angeles County Population and Solid Waste Disposal Trend (1990-2018) in Los Angeles County (As of January 1990 and January 1991)

TABLE 4-2: Summary of Yearly Solid Waste Disposal Quantities[1] (in Tons) for Los Angeles County from 1990 to 2018

Year	In-County Disposal at Class III Landfills	In-County Disposal at Transformation Facilities	Exports	Imports	Disposal at in-County Permitted Inert Waste Landfills	Total Disposal at Class III Landfills and Transformation Facilities, Including Exports	Total Disposal at Class III Landfills and Transformation Facilities, Including Exports and Excluding Imports	Total Disposal at Class III Landfills, Transformation Facilities, and Inert Waste Landfills, Including Exports and Excluding Imports
	A	B	C	D	E	F = A+B+C	G = A+B+C-D	H = A+B+C+E-D
1990	13,492,000	312,000	N/A[2]	N/A	2,108,000	[13,804,000]	[13,804,000]	[15,912,000]
1991	12,230,000	465,000	N/A	N/A	867,000	[12,695,000]	[12,695,000]	[13,562,000]
1992	11,922,000	523,000	22,000	N/A	867,000	12,467,000	[12,467,000]	[13,334,000]
1993	11,300,000	518,000	122,000	N/A	739,000	11,940,000	[11,940,000]	[12,679,000]
1994	11,590,000[3]	526,000	128,000	305,000	522,000	12,244,000	11,939,000	12,461,000
1995	11,646,000	573,000	52,000	774,000	530,000	12,271,000	11,497,000	12,027,000
1996	11,356,744	497,735	N/A	801,308	1,100,405	[11,854,479]	[12,655,787]	[13,756,192]
1997	10,389,210	439,673	N/A	374,318	869,542	[10,828,883]	[11,203,201]	[12,072,743]
1998	11,212,563	427,725	N/A	339,762	1,197,460	[11,640,288]	[11,980,050]	[13,177,510]
1999	9,950,602	455,245	738,323	210,600	1,010,000	11,144,170	10,933,570	11,943,570
2000	10,078,989	510,455	794,910	229,320	1,332,572	11,384,354	11,155,034	12,487,606

Source: Los Angeles County Public Works.

1 See Chapter 4, Sections 4.4 for discussion.

2 "N/A" means not available. There is no record per SWIMS.

3 Excludes debris generated as a result of Northridge Earthquake.

Column A Total disposal at Class III landfills in Los Angeles County. Data for the period 1990-1995 includes waste imported from jurisdictions outside the County. Data for the period 1996-2018 does not include waste imported from jurisdictions outside the County.

Column B Total disposal at transformation facilities in the County. Data for the period 1990-1995 includes waste imported from jurisdictions outside the County. Data for the period 1996-2018 does not include waste imported from jurisdictions outside the County. 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 the County to disposal facilities located outside the County. Data for the period 1996-1998 is not available.

Column D Waste that originated outside the County but disposed at Class III landfills and transformation facilities located in the County which originated outside the County.

Column E Total inert waste disposed by jurisdictions in the County at permitted (i.e., Registration and Full Solid Waste Facility Permit tier), inert waste landfills.

Column F Includes disposal by jurisdictions in the County at in-County Class III landfills and transformation facilities, and the waste exported to disposal facilities located outside the County. At this time, data for the period 1996-1998 does not include waste exported to jurisdictions outside the County, and will be updated when data becomes available.

Column G Includes disposal by jurisdictions in the County at Class III landfills, transformation facilities, and the waste exported to disposal facilities located outside the County. For 1994 and 1995, the total excludes waste imported from jurisdictions outside the Los Angeles County. At this time, data for the period 1996-1998 does not include waste exported to jurisdictions outside the County, and will be updated when data becomes available. Data for the period 1999-2018 does not include waste imported from jurisdictions outside the County.

Column H Includes disposal at Class III landfills, transformation facilities, permitted inert waste landfills, and the waste exported for disposal at landfills outside the County. For 1994 and 1995, the total excludes waste imported from jurisdictions outside the County. At this time, data for the period 1996-1998 does not include waste exported to jurisdictions outside the County. Data for the period 1999-2018 does not include waste imported from jurisdictions outside the County.

"[ ]" Disposal quantities affected by the missing data (shown as "N/A" and "TBD") in columns C and D are shown in brackets.

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TABLE 4-2:
Summary of Yearly Solid Waste Disposal Quantities
(in Tons) for Los Angeles County from 1990 to 2018

TABLE 4-2: Summary of Yearly Solid Waste Disposal Quantities[1] (in Tons) for Los Angeles County from 1990 to 2018 (Cont.)

Year	In-County Disposal at Class III Landfills	In-County Disposal at Transformation Facilities	Exports	Imports	Disposal at in-County Permitted Inert Waste Landfills	Total Disposal at Class III Landfills and Transformation Facilities, Including Exports	Total Disposal at Class III Landfills and Transformation Facilities, Including Exports and Excluding Imports	Total Disposal at Class III Landfills, Transformation Facilities, and Inert Waste Landfills, Including Exports and Excluding Imports
	A	B	C	D	E	F = A+B+C+D	G = A+B+C	H = A+B+C+E
2001	9,825,357	547,466	1,095,711	182,832	1,296,425	11,651,366	11,468,534	12,764,959
2002	8,973,755	539,542	2,009,845	158,496	1,045,960	11,681,638	11,523,142	12,569,102
2003	9,152,334	539,188	2,207,873	153,504	919,600	12,052,899	11,899,395	12,818,995
2004	9,110,298	548,249	2,308,181	156,000	1,247,500	12,122,728	11,966,728	13,214,228
2005	9,574,072	535,225	2,177,097	235,872	85,678	12,522,266	12,286,394	12,372,072
2006	9,583,227	537,733	1,782,609	266,448	101,748	12,170,017	11,903,569	12,005,317
2007	8,898,527	521,620	1,980,421	238,962	151,784	11,639,530	11,400,568	11,552,352
2008	7,908,376	520,776	1,914,153	208,079	173,651	10,551,384	10,343,305	10,516,956
2009	6,778,746	537,012	1,779,290	189,956	87,390	9,285,004	9,095,048	9,182,438
2010	6,313,263	539,129	1,917,993	210,521	54,964	8,980,906	8,770,385	8,825,349
2011	6,258,131	524,021	1,900,757	141,000	71,854	8,823,909	8,682,909	8,754,763
2012	6,239,143	528,765	1,844,175	141,145	89,142	8,753,228	8,612,083	8,701,225
2013	6,117,080	534,021	2,087,368	116,089	142,845	8,854,558	8,738,469	8,881,314
2014	4,544,921	512,353	3,699,963	115,752	266,675	8,872,988	8,757,237	9,023,912
2015	4,729,087	501,188	4,127,261	99,842	193,386	9,457,378	9,357,536	9,550,922
2016	5,134,395	473,315	4,209,360	117,776	279,966	9,934,846	9,817,070	10,097,036
2017	4,931,405	430,209	4,969,626	233,494	329,693	10,564,734	10,331,240	10,660,933
2018	4,995,296	366,642	5,120,871	175,737	291,877	10,658,546	10,482,809	10,774,686

Source: Los Angeles County Public Works.

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TABLE 4-2:
Summary of Yearly Solid Waste Disposal Quantities
(in Tons) for Los Angeles County from 1990 to 2018 (Cont.)

TABLE 4-3: Summary of Yearly Solid Waste Disposal Quantities[1] (in Cubic Yards) for Los Angeles County from 1990 to 2018

Year	In-County Disposal at Class III Landfills	In-County Disposal at Transformation Facilities	Exports	Imports	Disposal at in-County Permitted Inert Waste Landfills	Total Disposal at Class III Landfills and Transformation Facilities, Including Exports	Total Disposal at Class III Landfills and Transformation Facilities, Including Exports and Excluding Imports	Total Disposal at Class III Landfills, Transformation Facilities, and Inert Waste Landfills, Including Exports and Excluding Imports
	A	B	C	D	E	F = A+B+C+D	G = A+B+C	H = A+B+C+E
1990	22,486,667	520,000	N/A[2]	N/A	3,513,333	[23,006,667]	[23,006,667]	[26,520,000]
1991	20,383,333	775,000	N/A	N/A	1,445,000	[21,158,333]	[21,158,333]	[22,603,333]
1992	19,870,000	871,667	36,667	N/A	1,445,000	20,778,333	[20,778,333]	[22,223,333]
1993	18,833,333	863,333	203,333	N/A	1,231,667	19,900,000	[19,900,000]	[21,131,667]
1994	19,316,667[3]	876,667	213,333	508,333	870,000	20,406,667	19,898,333	20,768,333
1995	19,410,000	955,000	86,667	1,290,000	883,333	20,451,667	19,161,667	20,045,000
1996	18,927,907	829,558	N/A	1,335,513	1,834,008	[19,757,465]	[21,092,978]	[22,926,986]
1997	17,315,350	732,788	N/A	623,863	1,449,237	[18,048,138]	[18,672,001]	[20,121,238]
1998	18,687,605	712,875	N/A	566,270	1,995,767	[19,400,480]	[19,966,750]	[21,962,517]
1999	16,584,337	758,742	1,230,538	351,000	1,683,333	18,924,617	18,573,617	20,256,950
2000	16,798,315	850,758	1,324,850	382,200	2,220,953	19,356,123	18,973,923	21,194,877

Source: Los Angeles County Public Works.

1 See Chapter 4, Sections 4.4 for discussion. A conversion factor of 1,200 pounds per cubic yard was assumed for converting quantities from tons to cubic yards.

2 "N/A" means not available. There is no record per SWIMS.

3 Excludes debris generated as a result of Northridge Earthquake.

Column A Total disposal at Class III landfills in Los Angeles County. Data for the period 1990-1995 includes waste imported from jurisdictions outside the County. Data for the period 1996-2018 does not include waste imported from jurisdictions outside the County.

Column B Total disposal at transformation facilities in the County. Data for the period 1990-1995 includes waste imported from jurisdictions outside the County. Data for the period 1996-2018 does not include waste imported from jurisdictions outside the County. 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 the County to disposal facilities located outside the County. Data for the period 1996-1998 is not available.

Column D Waste that originated outside the County but disposed at Class III landfills and transformation facilities located in the County which originated outside the County.

Column E Total inert waste disposed by jurisdictions in the County at permitted (i.e., Registration and Full Solid Waste Facility Permit tier), inert waste landfills.

Column F Includes disposal by jurisdictions in the County at in-County Class III landfills and transformation facilities, and the waste exported to disposal facilities located outside the County. Data for the period 1996-1998 does not include waste exported to jurisdictions outside the County.

Column G Includes disposal by jurisdictions in the County at Class III landfills, transformation facilities, and the waste exported to disposal facilities located outside the County. For 1994 and 1995, the total excludes waste imported from jurisdictions outside the Los Angeles County. Data for the period 1996-1998 does not include waste exported to jurisdictions outside the County. Data for the period 1999-2018 does not include waste imported from jurisdictions outside the County.

Column H Includes disposal at Class III landfills, transformation facilities, permitted inert waste landfills, and the waste exported for disposal at landfills outside the County. For 1994 and 1995, the total excludes waste imported from jurisdictions outside the County. Data for the period 1996-1998 does not include waste exported to jurisdictions outside the County. Data for the period 1999-2018 does not include waste imported from jurisdictions outside the County.

"[ ]" Disposal quantities affected by the missing data (shown as "N/A" and "TBD") in columns C and D are shown in brackets.

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TABLE 4-3:
Summary of Yearly Solid Waste Disposal Quantities
(in Cubic Yards) for Los Angeles County from 1990 to 2018

TABLE 4-3: Summary of Yearly Solid Waste Disposal Quantities[1] (in Cubic Yards) for Los Angeles County from 1990 to 2018 (Cont.)

Year	In-County Disposal at Class III Landfills	In-County Disposal at Transformation Facilities	Exports	Imports	Disposal at in-County Permitted Inert Waste Landfills	Total Disposal at Class III Landfills and Transformation Facilities, Including Exports	Total Disposal at Class III Landfills and Transformation Facilities, Including Exports and Excluding Imports	Total Disposal at Class III Landfills, Transformation Facilities, and Inert Waste Landfills, Including Exports and Excluding Imports
	A	B	C	D	E	F = A+B+C+D	G = A+B+C	H = A+B+C+E
2001	16,375,595	912,443	1,826,185	304,720	2,160,708	19,418,943	19,114,223	21,274,932
2002	14,956,258	899,237	3,349,742	264,160	1,743,267	19,469,397	19,205,237	20,948,503
2003	15,253,890	898,647	3,679,788	255,840	1,532,667	20,088,165	19,832,325	21,364,992
2004	15,183,830	913,748	3,846,968	260,000	2,079,167	20,204,547	19,944,547	22,023,713
2005	15,956,787	892,042	3,628,495	393,120	142,797	20,870,443	20,477,323	20,620,120
2006	15,972,045	896,222	2,971,015	444,080	169,580	20,283,362	19,839,282	20,008,862
2007	14,830,878	869,367	3,300,702	398,270	252,973	19,399,217	19,000,947	19,253,920
2008	13,180,627	867,960	3,190,255	346,798	289,418	17,585,640	17,238,842	17,528,260
2009	11,297,910	895,020	2,965,483	316,593	145,650	15,475,007	15,158,413	15,304,063
2010	10,522,105	898,548	3,196,655	350,868	91,607	14,968,177	14,617,308	14,708,915
2011	10,430,218	873,368	3,167,928	235,000	119,757	14,706,515	14,471,515	14,591,272
2012	10,398,572	881,275	3,073,625	235,242	148,570	14,588,713	14,353,472	14,502,042
2013	10,195,133	890,035	3,478,947	193,482	238,075	14,757,597	14,564,115	14,802,190
2014	7,574,868	853,922	6,166,604	192,919	444,459	14,788,314	14,595,394	15,039,854
2015	7,881,812	835,313	6,878,768	166,403	322,310	15,762,296	15,595,893	15,918,203
2016	8,557,325	788,858	7,015,600	196,293	466,611	16,558,076	16,361,783	16,828,393
2017	8,219,009	717,016	8,282,709	389,156	549,489	17,607,890	17,218,734	17,768,222
2018	8,325,493	611,070	8,534,786	292,895	486,461	17,764,244	17,471,348	17,957,810

Source: Los Angeles County Public Works.

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TABLE 4-3:
Summary of Yearly Solid Waste Disposal Quantities
(in Cubic Yards) for Los Angeles County from 1990 to 2018 (Cont.)

4.4.3.1 1990-1995 Disposal Trends

The reported disposal quantities during this period are summarized on a yearly basis in **Figure 4-1**, and **Tables 4-2** (in tons) and **4-3** (in cubic yards).

A net downward trend in the quantities of solid waste disposed at in-County Class III landfills (see column A of **Tables 4-2** and **4-3**) was observed during the period 1990 through 1995, with no reduction in quantities of solid waste managed at the two transformation facilities (see column B of **Tables 4-2** and **4-3**).

There is no available data from 1990 to 1991 on the amount exported by jurisdictions in the County to disposal facilities located outside the County. However, there was a net upward trend in the export amount from 1992 through 1995 (see column C of **Tables 4-2** and **4-3**).

Similarly, there is no available data from 1990 through 1993 on the amount imported into the County. However, another trend that developed during this period was a sharp increase in the amount of Municipal Solid Waste (MSW) waste imported from other counties for disposal at Los Angeles County disposal facilities from 1994 (305,000 tons) to 1995 (774,000 tons) (see column D of **Tables 4-2** and **4-3**) that originated from neighboring counties such as Orange, Riverside, San Bernardino, San Diego, and Ventura Counties. This trend was attributed to steep increases in disposal costs experienced in those counties and/or the difficulties in permitting new disposal capacity.

Furthermore, the amount disposed by jurisdictions in the County (i.e., the total amount disposed at Class III landfills and transformation facilities including exports and excluding imports) showed a decreasing trend from 1990 to 1995 (see column G in **Tables 4-2** and **4-3**). While aggressive waste diversion programs being implemented by jurisdictions throughout the County contributed in substantial measure to the drop-in disposal quantities during the period of 1990 through 1995, much of the reduction occurred as a result of the recession experienced in the region between 1990 and 1995.

4.4.3.2 1996-2000 Disposal Trends

The reported disposal quantities during this period are summarized on a yearly basis in **Figure 4-1**, and **Tables 4-2** (in tons) and **4-3** (in cubic yards).

Based on the disposal information from the DRS and SWIMS, a cyclical but net downward trend in the quantities of solid waste disposed was observed at in-County Class III landfills (see column A of **Tables 4-2** and **4-3**). However, there was a relatively stable trend in the quantities of solid waste managed at the two transformation facilities.

There is no available data from 1996 to 1998 on the amount exported by jurisdictions in the County to disposal facilities located outside the County. However, the amount exported remained relatively the same from 1999 (732,323 tpd) to 2000 (794,910 tpd).

Also, there was a sharp decline in the amount of MSW imported from other counties such as Orange, Riverside, San Bernardino, San Diego, and Ventura Counties for disposal at Los Angeles County disposal facilities during this period. For example, approximately 801,308 tons (2,568 tpd) of solid waste that originated from outside Los Angeles County were disposed at in-County facilities in 1996, compared to approximately 229,320 tons (735 tpd) in 2000.

Furthermore, the amount disposed by jurisdictions in the County, (i.e., the total amount disposed at Class III landfills and transformation facilities including exports and excluding imports) showed a decreasing trend from 1996 through 2000 (see column G in **Tables 4-2** and **4-3**).

4.4.3.3 2001-2005 Disposal Trends

The reported disposal quantities during this period are summarized on a yearly basis in **Figure 4-1**, and **Tables 4-2** (in tons) and **4-3** (in cubic yards).

A net downward trend in the quantities of solid waste disposed at in-County Class III landfill was observed during the period of 2001 through 2005, with a relatively stable trend in the quantities of solid waste managed at the two transformation facilities.

Conversely, there was a significant net upward trend in the amount of MSW exported for disposal outside the County. Based on available data, approximately 1,095,711 tons (3,512 tpd) was exported out of the County in 2001 and approximately 2,177,097 tons (6,978 tpd) was exported in 2005.

Also, there was a relatively stable amount of MSW imported from other counties such as Orange, Riverside, San Bernardino, San Diego, and Ventura Counties for disposal at Los Angeles County disposal facilities during 2001 through 2004. However, a significant increase in the amount imported from other counties was observed for 2005. Based on available data, approximately 182,832 tons (586 tpd) of solid waste that originated from outside the County were disposed at in-County facilities in 2001 and approximately 235,872 tons (756 tpd) were disposed at in-County facilities in 2005.

Furthermore, the amount disposed by jurisdictions in the County (i.e., the total amount disposed at Class III landfills and transformation facilities including exports and excluding imports), showed a net increasing trend from 2001 through 2005 (see column G in **Tables 4-2** and **4-3**).

4.4.3.4 2006-2010 Disposal Trends

The reported disposal quantities during this period are summarized on a yearly basis in **Figure 4-1**, and **Tables 4-2** (in tons) and **4-3** (in cubic yards).

A downward trend in the quantities of solid waste disposed at in-County Class III landfills was observed during the period 2006 through 2010, with a relatively stable trend in the quantities of solid waste managed at the two transformation facilities.

Conversely, there was a net upward trend in the amount of MSW exported for disposal at landfills located outside the County. Based on available data, approximately 1,782,609 tons (5,713 tpd) was exported out of the County in 2006 and approximately 1,917,993 tons (6,147 tpd) was exported in 2010.

Also, there was a significant decrease in the amount of MSW 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 period 2006 to 2010. For example, approximately 266,448 tons (854 tpd) of solid waste that originated from outside Los Angeles County were disposed at in-County facilities in 2006, compared to approximately 210,521 tons (675 tpd) in 2010.

Furthermore, the total amount disposed by jurisdictions in the County (i.e., the total amount disposed at Class III landfills and transformation facilities including exports and excluding imports), showed a decreasing trend from 2006 through 2010 (see column G in **Tables 4-2** and **4-3**).

4.4.3.5 2011-2018 Disposal Trends

The reported disposal quantities during this period are summarized on a yearly basis in **Figure 4-1**, and **Tables 4-2** (in tons) and **4-3** (in cubic yards).

A downward trend in the quantities of solid waste disposed at in-County Class III landfills was observed during the period 2011 through 2018. There was a significant decrease in solid waste disposal between 2013 and 2014 mainly due to the closure of Puente Hills Landfill. A relatively stable trend in quantities of solid waste managed at the two transformation facilities was observed during the period 2010 through 2013.

Conversely, there was a significant upward trend in the amount of MSW exported for disposal at landfills located outside the County. Based on available data, approximately 1,900,757 tons (6,092 tpd) was exported out of the County in 2011 and approximately 5,120,871 tons (16,413 tpd) was exported in 2018.

Also, there was a significant increase in the amount of MSW 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 period 2011 to 2018. For example, approximately 141,000 tons (452 tpd) of solid waste that originated from outside Los Angeles County were disposed at in-County facilities in 2011, compared to approximately 175,737 tons (563 tpd) in 2018.

Furthermore, the total amount disposed by jurisdictions in the County (i.e., the total amount disposed at Class III landfills and transformation facilities including exports and excluding imports), remained relatively stable from 2011 through 2014 with a slight increase in 2015 and continuing through 2018 (see column G in **Tables 4-2** and **4-3**).

4.4.4 2018 Disposal Quantities and Capacity

4.4.4.1 2018 Disposal Quantities

The 2018 disposal quantities are based on SWIMS data for the period of January 1 through December 31, 2018. In 2018, the residents and businesses in the County disposed of about 10.8 million tons of solid waste at existing permitted land disposal and transformation facilities located in and out of the County. The disposal quantity distribution among the various types of disposal facilities is as follows (see **Figure 4-2**):

In-County Class III Landfills	
Six Major Landfills	4,868,864 tons
Four Minor Landfills	126,432 tons
In-County Transformation Facilities	366,642 tons
In-County Permitted Inert Waste Landfill	291,877 tons
Exports to Out-of-County Class III Facilities	**5,120,871 tons**
Total Amount Disposed	**10,774,686 tons**

- It should be noted that the 2018 solid waste disposal quantities calculated above have been adjusted to account for the following:
- The in-County Class III landfill disposal quantities exclude 125,914 tons of solid waste imported from Orange, Riverside, San Bernardino, San Diego, Ventura, and other Counties.
- The quantities disposed at transformation facilities exclude 49,823 tons of solid waste imported from Kern, Orange, Riverside, San Bernardino, San Diego, Ventura and other Counties, along with imports from out-of-State.
- The quantities disposed at permitted inert waste landfill exclude 66,378 tons of solid waste imported from other counties.

The above disposal quantities for solid waste generated in the County translate into a 2018 average disposal rate of approximately 34,534 tpd (six days/week) Countywide (i.e., 16,011 tpd at Class III landfills; 1,175 tpd at transformation facilities; 936 tpd at the permitted inert waste landfill; and 16,413 tpd exported to out-of-County Class III landfills). **Table 4-4** lists existing permitted landfills and transformation facilities, and the quantities of solid waste disposed of originating in the County. In addition, approximately 776 tpd (six days/week) were imported to the County for disposal at existing permitted land disposal and transformation facilities. Please note that the quantities listed in **Tables 4-2** and **4-4** may differ slightly from the above quantities due to the rounding of numbers.

FIGURE 4-2: 2018 Los Angeles County Solid Waste Disposal Distribution (January 1, 2018- December 31, 2018 in tons per years [tpy])

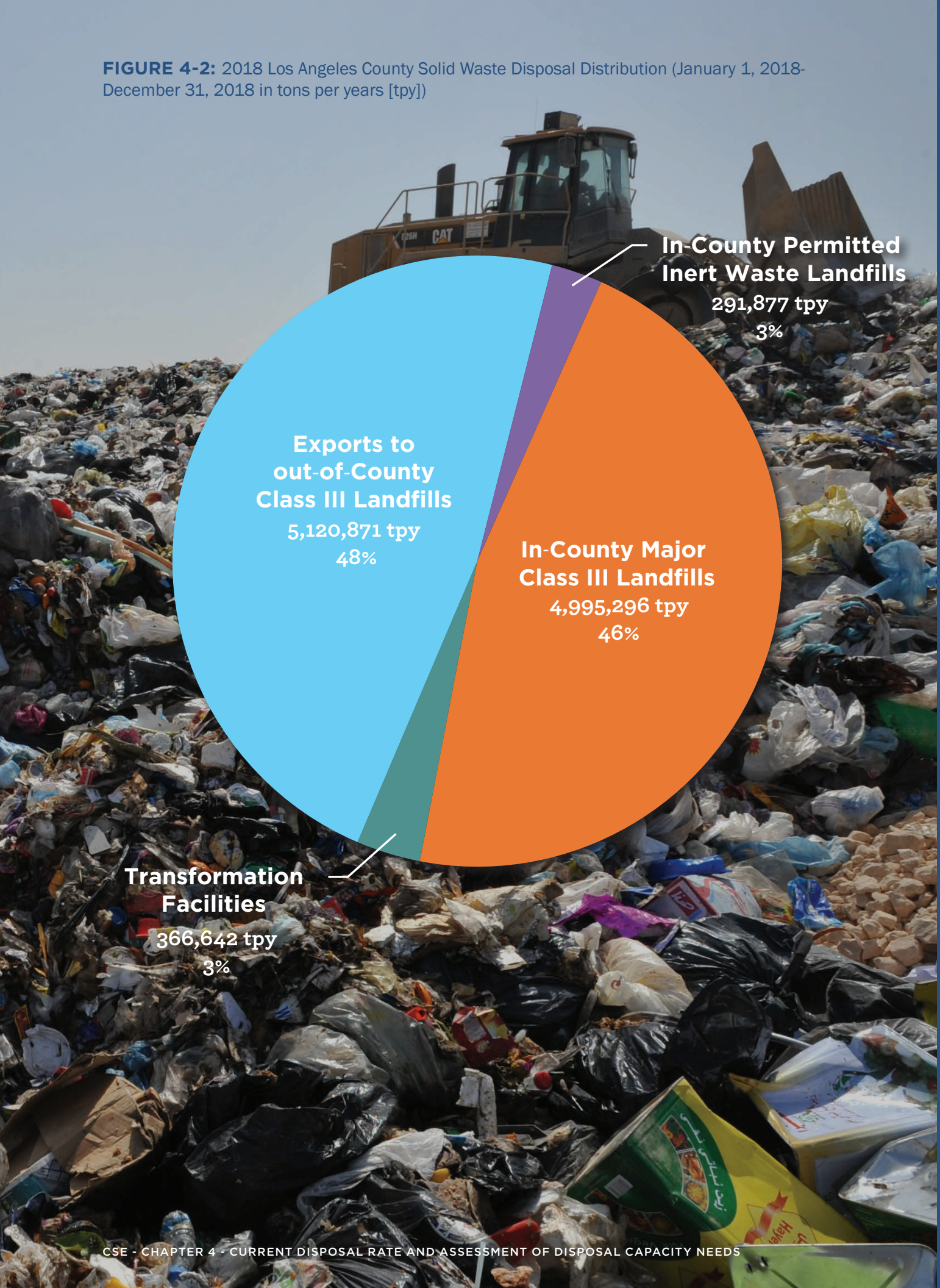

FIGURE 4-2: 2018 Los Angeles County Solid Waste Disposal Distribution (January 1, 2018- December 31, 2018 in tons per years [tpy])

4.4.4.2 Remaining Permitted Disposal Capacity as of December 31, 2018

As part of the preparation for the revised CSE, Public Works conducted a new study to determine (among other things) the remaining combined permitted disposal capacity, as of December 31, 2018. The study consisted of a written survey of all permitted solid waste disposal facilities in the County, as well as review of site specific permit criteria established by local land use agencies, LEAs, California Regional Water Quality Control Boards, and the South Coast Air Quality Management District. A summary of the data collected, and existing permit limitations is provided in **Chapter 3**, and shown in **Tables 4-4** and **4-5**.

Based on the data provided in **Table 4-4**, as of December 31, 2018, the remaining permitted combined disposal capacity for solid waste disposal facilities located in the County is estimated as follows:

- Remaining permitted Class III landfill capacity = 163.39 million tons (approximately 194.35 million cubic yards).
- Remaining permitted inert waste landfill capacity = 57.72 million tons 46.17 million cubic yards).
- Remaining permitted average daily transformation facility capacity = 1,370 tons per day.

The above permitted average daily transformation facility capacity is a 7-day/week average based on a United States Environmental Protection Agency (USEPA) limit of 500,000 tons per year, 7-days/week for the Southeast Resource Recovery Facility (SERRF). It should be noted that 99.8 percent of the ash residual generated by SERRF is currently being diverted for beneficial use. The remaining 0.20 percent of ash residual generated by SERRF is landfilled.

TABLE 4-4: Remaining Permitted Disposal Capacity of Existing Solid Waste Disposal Facilities in Los Angeles County

Facility	Solid Waste Facility Permit Number	Location	Permitted Operation	SWFP[1] Maximum Daily Capacity	LUP[2]/CUP[3] Maximum Daily Capacity	2018 Annual Disposal (Million Tons)[4]			2018 Average Daily Disposal tpd-6[4]			Estimated Remaining Permitted Capacity (as of December 31,2018)[5]		Remaining Life[7]	Tipping Fee	Comments
		City or Unincorporated Area	Days/ Week	Tons	Tons	In-County	Out-of-County	Total	In-County	Out-of-County	Total	Million Tons	Million[6] Cubic Yards	Years	$/Ton	
Antelope Valley	19-AA-5624	Palmdale	6	1,800	1,800	0.510	0.006	0.517	1,636	20	1,656	12.00	16.00	22	$67.57	The City of Palmdale approved the expansion and combined Antelope Valley Landfills #1 & #2 on September 19, 2011.
Burbank	19-AA-0040	Burbank	5	240	-	0.032	0.000	0.032	102	0	102	2.26	4.12	37	$45.25	Limited to the City of Burbank use only.
Calabasas	19-AA-0056	Unincorporated Area	6	3,500	3,500	0.307	0.011	0.318	985	35	1,021	4.91	11.07	11	$52.32	Limited to the Calabasas Wasteshed as defined by Los Angeles County Ordinance No. 91-0003.
Chiquita Canyon	19-AA-0052	Unincorporated Area	6	10,000	6,616 ('17 - '24) 3,411 ('25 - '47)	1.423	0.108	1.530	4,560	345	4,904	59.75	60.29	35	$68.00	
Lancaster	19-AA-0050	Unincorporated Area	6	3,000	5,100	0.114	0.001	0.116	367	4	370	10.23	13.64	23	$71.18- $73.72	
Pebbly Beach	19-AA-0061	Unincorporated Area	7	49	49	0.004	0.000	0.004	12	0	12	0.05	0.05	10	$139.58	LUP expires July 29, 2028.
San Clemente	19-AA-0063	San Clemente Island	2	9.6	-	0.0004	0	0.0004	1	0	1	0.036	0.29	14	-	Landfill owned and operated by the U.S. Navy.
Scholl Canyon	19-AA-0012	"Glendale/ Unincorporated Area"	6	3,400	-	0.403	0.000	0.403	1,292	0	1,292	4.29	7.08	11	$53.83	Limited to the Scholl Canyon Wasteshed as defined by City of Glendale Ordinance No. 4780.
Sunshine Canyon City/County	19-AA-2000	Los Angeles/ Unincorporated Area	6	12,100	12,100	2.111	0.000	2.111	6,765	0	6,765	65.27	74.18	19	$83.54	
Whittier (Savage Canyon)	19-AH-0001	Whittier	6	350	-	0.091	0.000	0.091	290	0	290	4.58	7.63	39	$47.32	Limited to use by City of Whittier and waste haulers contracted with the City of Whittier.
TOTAL				**34,449**	**29,165**	**4.995**	**0.126**	**5.121**	**16,011**	**404**	**16,414**	**163.39**	**194.35**	**-**	**-**	
Permitted Inert Landfills																
Azusa Land Reclamation	19-AA-0013	Azusa	6	6,500	-	0.292	0.066	0.358	936	213	1,148	55.72	46.17	28		By Court Order, on October 2, 1996, the California Regional Water Quality Control Board-Los Angeles region ordered the Azusa Land Reclamation Landfill to stop accepting Municipal Solid Waste.
TOTAL				**6,500**		**0.292**	**0.066**	**0.358**	**936**	**213**	**1,148**	**55.72**	**46.17**			

1 Solid Waste Facility Permit

2 Land Use Permit

3 Conditional Use Permit

4 Disposal quantities are based on actual tonnages reported by owners/operators of permitted solid waste disposal facilities to the Los Angeles County Public Works' Solid Waste Information Management System (www.LACountySWIMS.org.)

5 Estimated Remaining Permitted Capacity is based on landfill owner/operator's response in a written survey conducted by Los Angeles County Public Works in June 2015 as well as site-specific permit criteria established by local land use agencies, Local Enforcement Agencies, CalRecycle, California Regional Water Quality Control Board, and the South Coast Air Quality Management District.

6 Conversion factor based on in-place solid waste density is provided by landfill operators, otherwise a conversion factor of 1,200 lb/cy was used for Class III landfills.

7 Remaing Life is based on either the 2018 average daily disposal tonnage, maximum permitted capacity, or the facility's permit expiration date.

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TABLE 4-4:
Remaining Permitted Disposal Capacity of Existing Solid Waste Disposal Facilities in Los Angeles County

TABLE 4-4: Remaining Permitted Disposal Capacity of Existing Solid Waste Disposal Facilities in Los Angeles County (Cont.)

Facility	Solid Waste Facility Permit Number	Location	Permitted Operation	SWFP[1] Maximum Daily Capacity	LUP[2]/CUP[3] Maximum Daily Capacity	2018 Annual Disposal (Million Tons)[4]			2018 Average Daily Disposal tpd-6[4]			Estimated Remaining Permitted Capacity (as of December 31,2018)[5]		Remaining Life[7]	Tipping Fee	Comments
		City or Unincorporated Area	Days/ Week	Tons	Tons	In-County	Out-of-County	Total	In-County	Out-of-County	Total	Million Tons	Million[6] Cubic Yards	Years	$/Ton	
Transformation Facilities												Available Average Daily Capacity (tpd)				
Commerce Refuse To-Energy Facility (closed as of June 2018)	19-AA-0506	Commerce	7	1,000	-	0.039	0.006	0.045	124	19	143	400[8]			88.00	
Southeast Resource Recovery Facility	19-AK-0083	Long Beach	7	2,240	-	0.328	0.044	0.372	1,051	141	1,192	1,370[9]			75.00	
TOTAL				**3,240**		**0.367**	**0.050**	**0.416**	**1,175**	**160**	**1,335**	**1,770**[10]				
Out-of-County Disposal		Los Angeles County Waste Exported in 2013 to Out-of-County Class III Disposal Facilities								5,120,871 tons or 16,413 tpd-6						

Source: Los Angeles County Public Works.

8 Based on the Solid Waste Facility Permit limit of 2,800 tons per week, expressed as a daily average, seven days per week.

9 Based on EPA limit of 500,000 tons per year, expressed as a daily average, seven days per week.

10 Tonnage expressed as a daily average, six days per week.

TABLE 4-4:
Remaining Permitted Disposal Capacity of Existing Solid Waste Disposal Facilities in Los Angeles County (Cont.)

TABLE 4-5: Summary of Existing Inert Debris Disposal Sites in Los Angeles County (As of December 31, 2018)

Facility	SWIS No.	Location	Operation days/ week	EAN Maximum Daily Capacity		2018 Average Daily Disposal[1]		2018 Annual Disposal[2]	
				(cubic yards)[3]	(tpd)[3]	(cubic yards)	(tpd)	(million cubic yards)	(million tons)
Durbin Landfill	19-AA-1111	Irwindale	5	3,840	4,800	2,471	3,089	770,951	963,689
Hanson Aggregates West, Inc.[4]	19-AA-0044[5]	Irwindale	6	3,205	4,006	N/A[7]	N/A	N/A	N/A
Manning Pit[6]	N/A	Irwindale	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Montebello Land & Water Co.	19-AA-0019	Montebello	5	1	1	0.80	1	249	311
North Kincaid Pit[6]	N/A	Irwindale	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nu-Way Arrow Reclamation	19-AA-1074	Irwindale	6	6,923	8,654	1,621	2,026	505,666	632,083
Peck Road Gravel Pit	19-AA-0838	Monrovia	7	3,200	4,000	528	660	164,785	205,981
Reliance Pit II Inert Debris Engineered Fill Site	19-AA-0854	Irwindale	5	6,729	8,412	140	175	43,740	54,675
Sun Valley Landfill	19-AR-1160	Sun Valley	5	1,458	1,823	1,928	2,411	601,673	752,091
United Rock Products Pit #2	19-AA-0046	Irwindale	6	3,077	3,846	926	1,157	288,795	360,994
	TOTAL			**28,433**	**35,541**	**7,615**	**9,519**	**2,375,858**	**2,969,823**

Source: Los Angeles County Public Works.

1 Disposal quantities for 2018 are based on actual tonnages reported by owners/operators through the Solid Waste Management Fee invoice receipt.
2 Conversion factor based on in-place solid waste density if provided by landfill operators, otherwise a conversion factor of 2,500 lb/cy was used.
3 Derived from the permit values noted in the CalRecycle Website as of July 2018.
4 This facility has resumed its backfilling activities since February 2016.
5 North Kincaid Pit and Manning Pit are both unclassified as of December 31, 2018.
6 N/A means not available

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TABLE 4-5:
Summary of Existing Inert Debris Disposal Sites in Los Angeles County
(As of December 31, 2018)

4.5 ADEQUACY OF EXISTING REMAINING PERMITTED IN-COUNTY DISPOSAL CAPACITY (AS OF DECEMBER 31, 2018)

4.5.1 Class III Landfills

Based on the results of the survey and considering permit restrictions and other factors, the remaining permitted Class III landfill capacity in the County as of December 31, 2018, is estimated at 163.39 million tons (194.35 million cubic yards) (see **Table 4-4**). As shown in **Table 4-6**, the cumulative permitted Class III landfill disposal capacity needs at the end of the planning period (approximately 176.1 million tons) will not exceed the existing remaining permitted in-County Class III landfill capacity of 163.39 million tons.

However, as discussed below, this simple comparison does not accurately predict when a shortfall in daily permitted disposal capacity may be experienced. Rather, it is necessary to compare the maximum permitted daily capacity available with the County's daily disposal needs, with full consideration of the facilities' constraints to determine when the shortfall in permitted daily 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 to enable jurisdictions to project when a disposal capacity need may occur.

Protecting the economic well-being of Los Angeles County

4.5.2 Inert Waste Landfills

As of December 31, 2018, there were 10 inert waste landfills in the County (see **Table 4-5**). The total inert waste (including imports) disposed in the inert waste landfills in 2018 is 3.33 million tons (2.66 million cubic yards). Pursuant to the Construction and Demolition Waste and Inert Debris Disposal Phase II Tiered Regulation[2], only inert waste landfills falling under the Full and Registration permit tiers (of the Solid Waste Facility Permit tier) are considered "permitted" disposal facilities.

Permitted Inert Waste Landfill

Azusa Land Reclamation is the only permitted inert waste landfill in the County that falls under the Full or Registration tiers. The remaining disposal capacity for the permitted inert waste landfill is estimated at 55.72 million tons (46.17 million cubic yards) as shown in **Table 4-4**. In 2018, the average rate of disposal of 1,148 tpd (0.36 million tons per year), this would exhaust the total permitted inert waste landfill capacity in 28 years based on the current Solid Waste Facility Permit estimated closure date. Accordingly, the County has adequate permitted inert waste landfill capacity at this time.

Inert Debris Engineered Fill Operations

There are 10 inert debris engineered fill operations (IDEFO)[3] in the County, namely: Durbin Inert Debris Engineered Fill Site, Hanson Aggregates (Livingston-Graham), Manning Pit, Montebello Land and Water Company, North Kincaid Pit, Nu-Way Arrow Reclamation, Peck Road Gravel Pit, Reliance Landfill, Sun Valley Landfill, and United Rock Products. These operations handled approximately 2.97 million tons (2.38 million cubic yards) of inert waste in the County in 2018 (see **Table 4-4**).

4.5.3 Transformation Facilities

As of December 31, 2018, only one transformation facility operates in the County, Southeast Resources Recovery Facility (SERRF). Commerce Refuse-to-Energy Facility (CREF) closed in June 2018). SERRF has a maximum permitted daily capacity of 2,240 tons (seven days/week average, based on a maximum permitted annual capacity). The owner/operator of this facility has indicated that there are currently no plans for increasing the permitted daily capacity of SERRF.

The disposal capacity need analysis (see Section 4.10) assumes the average permitted daily capacity of 1,370[4] tpd as the estimated remaining capacity for SERRF, towards satisfying the daily disposal needs of the jurisdictions in the County through the 15-year planning period. The remaining daily disposal needs must be handled by the in-County Class III landfills, out-of-County landfills, and utilizing other strategies.

2 The current classification of inert waste landfills is primarily governed by the State's Construction and Demolition Waste and Inert Debris Disposal Phase II Tiered Regulation (CCR, Title 14, Sections 17387 through 17390). These regulations placed inert waste landfills into four regulatory tiers, namely, Full Solid Waste Facility Permit, Registration Permit, Enforcement Agency Notification, and Excluded Operations.

3 Inert debris engineered fill operations are inert waste landfills under the Enforcement Agency (EA) Notification Tier and are excluded from the disposal capacity analysis as a result of changes in State law.

4 Based on a USEPA limit of 500,000 tons per year (expressed as a daily average, seven days/week) for SERRF.

TABLE 4-6: Los Angeles County Solid Waste Disposal Capacity Requirements for the Planning Period (2018-2033)

A	B	C	D	E	F	G	H	I	J
YEAR	TOTAL GENERATION	PERCENT DIVERSION	TOTAL DIVERSION	PROJECTED TRANSFORMATION & CLASS III LANDFILL DISPOSAL	AVAILABLE TRANSFORMATION CAPACITY	CLASS III LANDFILL DISPOSAL NEED			
						ANNUAL		CUMULATIVE (YEAR'S END)	
	TONS	(ASSUMED)	TONS	(TONS)	TONS	TONS	CUBIC YARDS	TONS	CUBIC YARDS
2018	29,950,883	65%	19,468,074	10,482,809	645,600	9,837,209	16,395,348	9,837,209	16,395,348
2019	30,094,560	65%	19,561,464	10,533,096	572,800	9,960,296	16,600,493	19,797,505	32,995,842
2020	30,447,740	65%	19,791,031	10,656,709	500,000	10,156,709	16,927,848	29,954,214	49,923,690
2021	29,957,369	65%	19,472,290	10,485,079	500,000	9,985,079	16,641,798	39,939,293	66,565,489
2022	30,064,867	65%	19,542,163	10,522,703	500,000	10,022,703	16,704,506	49,961,997	83,269,994
2023	30,494,722	65%	19,821,569	10,673,153	500,000	10,173,153	16,955,254	60,135,149	100,225,248
2024	31,041,134	65%	20,176,737	10,864,397	250,000	10,614,397	17,690,661	70,749,546	117,915,910
2025	31,572,648	65%	20,522,221	11,050,427	0	11,050,427	18,417,378	81,799,973	136,333,288
2026	32,352,266	65%	21,028,973	11,323,293	0	11,323,293	18,872,155	93,123,266	155,205,443
2027	32,711,288	65%	21,262,337	11,448,951	0	11,448,951	19,081,585	104,572,217	174,287,028
2028	33,088,339	65%	21,507,420	11,580,919	0	11,580,919	19,301,531	116,153,135	193,588,559
2029	33,464,150	65%	21,751,698	11,712,453	0	11,712,453	19,520,754	127,865,588	213,109,313
2030	33,864,489	65%	22,011,918	11,852,571	0	11,852,571	19,754,285	139,718,159	232,863,598
2031	34,270,220	65%	22,275,643	11,994,577	0	11,994,577	19,990,962	151,712,736	252,854,560
2032	34,685,944	65%	22,545,864	12,140,080	0	12,140,080	20,233,467	163,852,817	273,088,028
2033	35,112,986	65%	22,823,441	12,289,545	0	12,289,545	20,482,575	176,142,361	293,570,602

Source: Los Angeles County Public Works.

1 Waste generation (Column B) is calculated using CalRecycle's Adjustment Methodology, utilizing employment, population, and taxable sales projections from UCLA Anderson Long-term Forecast (July 2018).

2 Waste generation for 2018 is based on actual in-County and out-of-County transformation and Class III landfill disposal by jurisdictions in Los Angeles County. A 65 percent diversion rate is assumed for all years (Column C). These tonnages DO NOT include inert waste disposed at permitted inert landfills.

3 The 2018 transformation and Class III landfill disposal quantity (first figure under Column E) is based on tonnages reported by permitted solid waste disposal facility operators in Los Angeles County and export quantities reported by other counties to Los Angeles County Public Works as part of the 2018 Disposal Quantity Reporting data.

4 The available transformation capacity (Column F) considers the closure of Commerce Refuse to Energy Facility in June 2018 and assumes continued operation of Southeast Resource Recovery Facility until June 2024.

5 Columns H and J are based on Columns G and I, respectively, using an in-place waste density of 1,200 lb/cy.

* Excludes disposal capacity rates provided by permitted inert waste landfills

TABLE 4-6:
Los Angeles County Solid Waste Disposal Capacity Requirements for the Planning Period (2018-2033)

4.5.4 Conversion Technology Facilities

Currently, there are no conversion technology facilities in the County. However, in order to encourage their development, Los Angeles County Public Works (Public Works) is working with the Alternative Technology Advisory Subcommittee (ATAS) of the Task Force to investigate the feasibility of and promote conversion technologies, including actively pursuing the development of one or more demonstration facilities in Southern California.

This process began with Phase I, in which the County and ATAS conducted a preliminary evaluation, screening, and ranking of conversion technology companies and identification of Material Recovery Facilities and Transfer Stations (MRF/TS) that could potentially host a conversion technology facility. The findings resulted in the development of the "Conversion Technology Evaluation Report for Los Angeles County Public Works and the Los Angeles Solid Waste Management Committee/Integrated Waste Management Task Force's Alternative Technology Advisory Subcommittee", (also known as the "Phase I Report"), adopted by the Task Force in 2005.

Phase II consisted of a detailed evaluation of selected technology and MRF/TS sites. The Task Force also adopted the "Los Angeles County Conversion Technology Report for Los Angeles County Public Works and the Los Angeles Solid Waste Management Committee/Integrated Waste Management Task Force's Alternative Technology Advisory Subcommittee: Phase II Assessment" in 2007, which identifies four viable conversion technology suppliers and four suitable locations for potential development of a demonstration project. Following Phase II, Public Works issued a Request for Offers in 2008 to the recommended companies and sites, which resulted in the establishment of three public-private project development teams that connected a conversion technology company with a local MRF operator and site owner.

In addition to the projects led by the County and City of Los Angeles, the County Board of Supervisors approved a CUP in 2008 for development of a $30 million-dollar cellulosic waste-to-ethanol plant adjacent to the Lancaster Landfill, in the unincorporated County area near the City of Lancaster. The proposed project, spearheaded by California-based BlueFire Renewables, Inc. (BlueFire), would consist of a commercial scale plant that would convert grass cuttings, wood chips, and other source-separated waste into ethanol. The plant would be capable of converting 170 tpd of source-separated cellulosic materials such as green waste and wood waste, into approximately three million gallons of ethanol per year, using an acid hydrolysis and fermentation conversion technology process. The project is currently on hold; however, BlueFire is developing a similar project in Mississippi, which is funded by a $40 million grant from the United States Department of Energy.

It should be noted that at this time, the regulatory status of conversion technologies is still uncertain due to lack of legislative support on whether conversion technologies should be categorized as solid waste disposal facilities or need to be included and listed in a CSE.

A detailed discussion of conversion technologies is included in **Chapter 5 ("Alternative Technologies")** and **Chapter 7 ("Proposed In-County Facility Locations and Descriptions")** of the CSE.

4.6 OUT-OF-COUNTY DISPOSAL

4.6.1 Introduction

While the goal of jurisdictions in the County is to provide in-County disposal capacity to serve the needs of their residents, past and current experience in expansions of existing landfills underscores the magnitude of the challenge facing the County. Since no new Class III landfills are expected to be sited in the County in the foreseeable future, and since more than 15 years advance planning is required to maintain appropriate disposal capacity in the County, all available disposal options must be maximized 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 the County have recognized the need for out-of-County disposal capacity to complement and extend the life of in-County 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.

4.6.2 Available Out-of-County Disposal Capacity

Based on the disposal information from DRS reports in SWIMS, over the last decade, on the average, approximately 66 percent of the residual solid waste generated in the County (that is destined for disposal) was disposed in the County. The remaining 34 percent was exported for disposal at out-of-County Class III landfills. The majority of the 37 percent average waste export was to surrounding counties. For example, in 2018, Orange, Riverside, San Bernardino, Ventura Counties, and other surrounding counties received 34 percent, 33 percent, 14 percent, and 15 percent of waste exports respectively. The remaining four percent of the exports was sent to landfills in Kern, San Diego, Solano and Stanislaus Counties combined.

A list of the out-of-County landfills (in the respective counties) currently receiving an average of 100 tons per day or more of waste exported from the County is shown in **Chapter 9**, **Table 9-1**.

El Sobrante Landfill, Riverside County. The El Sobrante Landfill in Riverside County has a remaining capacity of 148 million tons; is permitted to receive 70,000 tons per week (with 16,054 tpd limits of waste for disposal); and has a permit expected to expire in 2045. This Landfill received an average of 12,050 tpd in 2018, of which about 4,857 tpd were imported from Los Angeles County.

Frank R. Bowerman Sanitary Landfill, Olinda Alpha Sanitary Landfill, and Prima Deshecha Sanitary Landfill, Orange County. Collectively, these Landfills received an average of 16,197 tpd in 2018, of which 5,526 tpd were imported from Los Angeles County. Orange County currently has waste importation agreements with various entities in Los Angeles County that are expected to expire in 2025.

Mesquite Regional Landfill, Imperial County. Mesquite Regional Landfill is Class III landfill located in Imperial County with a maximum permitted capacity of 20,000 tpd. The CSD closed escrow on the fully permitted Landfill in December 2002. Since then, the CSD has completed long-term site planning, followed by design and construction of all the infrastructure needed for site operations. The Landfill has been capable of receiving refuse since the end of 2008. By the end of 2011, the rail yard and spur were completed and capable of receiving refuse by rail.

Mesquite Regional Landfill has a disposal capacity of 1.1 billion cubic yards (660 million tons) and an approximate lifespan of 100 years at the 20,000 tpd daily rate. Southern California communities can transport 20,000 tpd to the Landfill by a combination of rail or truck (as described below), with up to 1,000 tpd of that capacity reserved for use by Imperial County jurisdictions.

In 2011, CUP #1036-91 was amended to allow 4,000 tpd of out of county waste to be trucked to the Landfill. Additionally, the Landfill can receive 600 tpd of non-hazardous incinerator ash from Los Angeles County. Rail operations are most efficient when unit trains are loaded with 4,000 tons of refuse. The amendment to allow waste delivery by truck avoids inefficient and costly rail operations transporting fragments of a unit train. See **Tables 9-1** and **9-2**, **Fact Sheet 9-1** and **Figure 9-1** for more detailed information on the Landfill.

Simi Valley Landfill and Recycling Center, Ventura County. The Simi Valley Landfill and Recycling Center in Ventura County, has a combined permitted capacity of 9,250 tpd for all incoming materials, which may include both MSW and recyclables with a remaining capacity of 50 million tons. More specifically, the Landfill is limited to 6,000 tpd of MSW and 3,250 tpd of recyclables. In 2018, Simi Valley Landfill and Recycling Center received an average of 4,087 tpd in 2018, of which 2,522 tpd were imported from Los Angeles County.

Other Out-of-County Landfills. Additionally, other existing and proposed new out-of-County landfills located in California that could accept solid waste from the County also exist (see **Chapter 9**, **Table 9-1**).

Based on the analysis in the Scenario **Tables 4-11** to **4-16**, the current and future available disposal capacity provided by the out-of-County landfills (listed in **Table 9-1** of **Chapter 9**), will provide adequate out-of-County disposal capacity to cover the Class III landfill **export need** and permitted daily capacity need during the 15-year planning period. However, this conclusion takes into consideration the following assumptions:

(d) The amount of export capacity (i.e., out-of-County disposal capacity) available for the County would continue to be available as indicated in **Chapter 9**, **Tables 9-1** and **9-2**.

(e) The amount of current exports will steadily increase in concert with closure of in-County landfills as anticipated.

(f) In-County alternative technology (e.g., conversion technology) facilities will be developed and sited.

Key Terms

Export Need or Out-of-County Disposal Need
Refers to the difference between the amount of solid waste generated within (and/or imported into) Los Angeles County that needs to be disposed after waste diversion and alternative technology (e.g., conversion technology) processes have been utilized, and available disposal capacity of permitted in-County landfills and transformation facilities is not sufficient.

4.7 IN-COUNTY TRANSFER AND PROCESSING FACILITIES' CAPACITY

As of 2018, there are approximately 74 large volume transfer and processing facilities[5] (e.g., transfer stations (TSs), material recovery facilities (MRFs), construction, demolition, and inert (CDI) debris processing facilities, composting/chipping and grinding facilities, and anaerobic digestion facilities operating within the County (see **Table 4-7** and **Map 4-1**). Of these 74 facilities, 17 are TSs, 29 are MRFs, 9 CDI debris processing facilities, and 17 composting, chipping and grinding facilities, and two anaerobic digestion facilities). The permitted capacity for the TSs, MRFs, CDI debris processing facilities, composting/chipping and grinding facilities, and anaerobic digestion facilities is approximately 21,114 tpd, 52,807 tpd,7,066 tpd, 5,265 tpd and 434 tpd, respectively.

It should be noted that even though the amount of permitted transfer or processing capacity of the MRFs, TSs, and CDI debris processing facilities in the County is adequate, the distribution of these facilities countywide is not adequate because the vast majority of the MRFs, TSs, and CDI debris processing facilities are located in the South Bay area of the County with only two facilities located in the northern part of the County (Antelope Valley and Santa Clarita Valley areas). To maximize the recycling of waste generated in the county, more MRF's, TSs, and CDI debris processing facilities are needed countywide.

However, as local waste disposal capacity options diminish within the County and with the development of Puente Hills Intermodal Facility by CSD, MRF operators may also elect to utilize rail transport to ship waste to out-of-County landfills for disposal (see **Chapter 9**, **Table 9-2**).

Waste-by-truck remains a viable and economical option to transport waste to other out-of-County and remote landfills, particularly for distances less than 200 miles. Other proposals for transporting waste out of the County are discussed in detail in **Chapter 9** of the CSE (see **Chapter 9**, Section 9.5).

5 Facilities are permitted by CalRecycle with a minimum of 100 tpd of permitted capacity or maximum average allowed intake.

TABLE 4-7: List[1] of Materials Recovery Facilities, Transfer Stations, Construction, Demolition and Inert Debris Processing Facilities, Composting/Chipping and Grinding Facilities and Anaerobic Digestion Facilities in Los Angeles County in 2018

No.	Facility Name	Location	SWIS[2] No. [SWFP Tier]	Facility Type	Owner	Operator	Permitted Daily Intake Capacity[3] (in tpd-6) [ ][4]
			MATERIALS RECOVERY FACILITIES[5]				
1	Active Recycling MRF and Transfer Station	2000 W. Slauson Avenue, Los Angeles, CA 90047	19-AR-1250 [P]	Large Volume Transfer/ Processing Facility[6]	Active Recycling Company, Inc.	Active Recycling Company, Inc.	250
2	Allan Company Baldwin Park	14604-14618 Arrow Highway, Baldwin Park, CA 91706	19-AA-1110 [P]	Large Volume Transfer/ Processing Facility	Cedarwood-Young, Doing Business As Alan Company	Cedarwood-Young, Doing Business As Alan Company	750
3	Angelus Western Paper Fibers, Inc.	2474 Porter Street, Los Angeles, CA 90021	19-AR-1185 [P]	Large Volume Transfer/ Processing Facility	Bloom Investment	Angelus Western, Paper Fibers, Inc.	650
4	Athens Services	14048 East Valley Boulevard, Industry, CA 91746	19-AA-0863 [P]	Large Volume Transfer/ Processing Facility	Arakelian Enterprises, Inc.	Athens Services	5,000
5	Athens Sun Valley Materials Recycling & Transfer Station	11121 Pendleton Street, Sun Valley, CA 91353	19-AR-5581 [R]	Large Volume Transfer/ Processing Facility	Arakelian Enterprises, Inc.	Arakelian Enterprises, Inc.	1,500
6	Azusa Transfer and MRF	1501 W. Gladstone Street, Azusa, CA 91701	19-AA-1127 [P]	Large Volume Transfer/ Processing Facility	Azusa Land Reclamation	Azusa Land Reclamation	3,800
7	Bradley East Transfer Station (Sun Valley Recycling Park)	9227 Tujunga Avenue, Sun Valley, CA 91352	19-AR-1237 [T]	Large Volume Transfer/ Processing Facility	Waste Management Recycling and Disposal Service of California	Waste Management Recycling and Disposal Service of California	1,532
8	City Fiber – Los Angeles Plant #2	2545 East 25th Street, Los Angeles, CA 90058	19-AR-1236 [P]	Large Volume Transfer/ Processing Facility	City Fibers Waste Management Recycling and Disposal Service of California	Todd Jones	300
9	City Fibers – West Valley Plant	16714 Schoenborn Street, Los Angeles, CA 91343	19-AR-1235 [P]	Large Volume Transfer/ Processing Facility	City Fibers	Todd Jones	350
10	City of Glendale MRF and TS	540 W. Chevy Chase Drive ,Glendale, CA 91204	19-AA-1130 [P]	Large Volume Transfer/ Processing Facility	Allan Company BFI Waste Systems of North America, Inc.	Allan Company	250
11	City Terrace Recycling Transfer Station	1511-1533 Fishburn Avenue, City Terrace, CA 90063	19-AA-0859 [P]	Large Volume Transfer/ Processing Facility	Robert M. Arsenian	Robert M. Arsenian	700

1 Facilities listed are permitted by the California Department of Resources Recycling and Recovery (CalRecycle). The data was obtained from CalRecycle's Solid Waste Information System (SWIS) and the County's Solid Waste Information Management System (SWIMS) as of August 2015. This list only includes facilities with a permitted daily capacity of at least 100 tpd (with the exception of anaerobic digestion facilities).

2 The SWIS number is the same as the Solid Waste Facility Permit (SWFP) number. The designation of "EAN" means that the MRF, TS, or CDI debris processing facility is identified in the SWIS database as having an Enforcement Agency Notification tier under the 1994 California Integrated Waste Management Board tiered regulatory structure for all solid waste facilities and solid waste handling operation. Under this tier, the facility is responsible to inform the local enforcement agency (responsible for enforcing solid waste handling laws and regulations) in a particular jurisdiction in the State. The designation," P" means that the facility or site holds a SWFP per California Code of Regulations (CCR) Section 18200 et seq. The designation "R" means that the facility's or site's SWFP has been revised. The designation "T" means that the facility or site was issued a temporary SWFP. The designation "RP" means that the facility or site was issued a registration permit in accordance with Title 14, California Code of Regulations section 18104.

3 Permitted Daily Intake Capacity is the total quantity of solid waste the facility is allowed to receive in accordance with the terms, conditions, and limitations of relevant permits. The permitted capacity listed is based on information from the SWIS database website.

4 Figures in brackets are converted from cubic yards to tons using a conversion factor of: 900 pounds per cubic yard for Transfer Station Facilities; 240 pounds per cubic yard for Composting/Chipping and Grinding Facilities; and 1,200 pounds per cubic yard for Construction, Demolition and Inert Debris Facilities.

5 "Materials Recovery Facilities" (MRF) means solid waste facilities where solid wastes or recyclable materials are sorted or separated, by hand or by use of machinery, for the purposes of recycling or composting, or use as feed stock for alternative technology facilities. Facilities listed in this Table under the MRF Category are facilities listed in the SWIS database as transfer and processing facilities.

6 "Large Volume Transfer/Processing Facility" means a facility that receives 100 tons or more solid waste per operating day for the purpose of storing, handling, or processing the waste prior to transferring the waste to another solid waste operation or facility per [14 CCR, Title 14, Section 17402 (a)(9)].

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TABLE 4-7:
ListofMaterialsRecoveryFacilities,TransferStations,Construction,DemolitionandInertDebrisProcessingFacilities,
Composting/ChippingandGrindingFacilitiesandAnaerobicDigestionFacilitiesinLosAngelesCountyin2018

TABLE 4-7: List[1] of Materials Recovery Facilities, Transfer Stations, Construction, Demolition and Inert Debris Processing Facilities, Composting/Chipping and Grinding Facilities and Anaerobic Digestion Facilities in Los Angeles County in 2018 (Cont.)

No.	Facility Name	Location	SWIS[2] No. [SWFP Tier]	Facility Type	Owner	Operator	Permitted Daily Intake Capacity[3] (in tpd-6) [ ][4]
12	Downey Area Recycling and Transfer (DART)	9770 Washburn Road, Downey, CA 90241	19-AA-0801 [P]	Large Volume Transfer/ Processing Facility	County Sanitation Districts of Los Angeles County and Downey Area R&T	County Sanitation Districts of Los Angeles County and Downey Area R&T	5,000
13	Falcon Refuse Center, Inc.	3031 East "I" Street, Wilmington, CA 90744	19-AR-0302 [P]	Large Volume Transfer/ Processing Facility	BFI Waste Systems of North America, Inc.	Allied Waste Transfer Services of California	1,850
14	Grand Central Recycling and Transfer Station	999 Hatcher Avenue, City of Industry, CA 91748	19-AA-1042 [P]	Large Volume Transfer/ Processing Facility	Grand Central Recycling and Transfer Station Inc.	Grand Central Recycling and Transfer Station Inc.	5,000
15	Los Angeles Express Materials Recovery Facility	6625 Stanford Avenue, Los Angeles, CA 90001	19-AR-1234 [P]	Large Volume Transfer/ Processing Facility	Olga Wilheim Trust; Miguel Dilella, Robert Wilheim, Olga Wilheim Trust	Titus Maintenance and Install Services, Inc.	207
16	Mission Recycling/West Coast Recycling	1326 East 9th Street, Pomona, CA 91766	19-AA-1107 [P]	Large Volume Transfer/ Processing Facility	Al Solis	West Coast Recycling DBA Mission Recycling	300
17	Mission Recycling/West Coast Recycling	1341 East Mission Boulevard, Pomona, CA 91766	19-AA-1108 [P]	Large Volume Transfer/ Processing Facility	Al Solis	West Coast Recycling DBA Mission Recycling	200
18	Mission Road Recycling and Transfer Station	840 South Mission Road, Los Angeles, CA 90023	19-AR-1183 [P]	Large Volume Transfer/ Processing Facility	Waste Management, Inc.	Waste Management, Inc. – Bradley LF and Miss	1,785
19	Paramount Resource Recycling Facility	7230 Petterson Lane, Paramount, CA 90723	19-AA-0840 [P]	Large Volume Transfer/ Processing Facility	Metropolitan Waste Disposal Corporation	Paramount Resource Recycling, Inc.	2,450
20	Pico Rivera Materials Recycling Facility	8405 Loch Lomond Drive, Pico Rivera, CA 90660	19-AA-1105 [P]	Large Volume Transfer/ Processing Facility	Danny D. Samarin	Waste Management Recycle America LLC	327
21	Potential Industries	922 East E Street, Wilmington, CA 90744	19-AR-1243 [P]	Large Volume Transfer/ Processing Facility	Potential Industries; Henry and Jessica Chen	Potential Industries	5,000
22	Puente Hills Materials Recovery Facility (with potential rail loading capability)	2808 Workman Mill Road, Whittier, CA 90601	19-AA-1043 [R]	Large Volume Transfer/ Processing Facility	Sanitation Districts of Los Angeles County	County Sanitation Districts of Los Angeles County	4,400
23	Crown Recycling Services	9147 De Garmo Avenue, Sun Valley, CA 91352	19-AR-0303 [P]	Large Volume Transfer/ Processing Facility	Thomas Fry	Recology Los Angeles	6,700
24	SA Recycling LLC	8720 Tujunga Avenue, Sun Valley, CA 91352	19-AR-1258 [RP]	Medium Volume[7] Transfer/Processing Facility	SA Recycling LLC	SA Recycling LLC	100
25	Southern California Disposal Recycling and Transfer Station	1908 Frank Street, Santa Monica, CA 90404	19-AA-0846 [P]	Large Volume Transfer/ Processing Facility	Southern California Disposal Co. Recycling and Transfer Station	Southern California Disposal Co. Recycling and Transfer Station	1,056
26	Sun Valley Paper Stock Materials Recovery Facility and Transfer Station	8701 San Fernando Road, Sun Valley, CA 91352	19-AR-1227 [P]	Large Volume Transfer/ Processing Facility	Stephen Young	Sun Valley Paper Stock Transfer Station and Materials Recovery Facility	750

7 "Medium Volume Transfer/Processing Facility" means a facility that receives equal to or more than 60 cubic yards or 15 tons (whichever is greater) of solid waste per operating day but less than 100 tons of solid waste, for the purpose of storing or handling the waste prior to transferring the waste to another solid waste operation or facility; or a facility that receives any amount of solid waste, up to 100 tons per operating day, for the purpose of processing solid waste prior to transferring the waste to another solid waste operation or facility.

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TABLE 4-7:
ListofMaterialsRecoveryFacilities,TransferStations,Construction,DemolitionandInertDebrisProcessingFacilities, and Anaerobic Digestion Facilities in Los Angeles County in 2018 (Cont.)

TABLE 4-7: List[1] of Materials Recovery Facilities, Transfer Stations, Construction, Demolition and Inert Debris Processing Facilities, Composting/Chipping and Grinding Facilities and Anaerobic Digestion Facilities in Los Angeles County in 2018 (Cont.)

No.	Facility Name	Location	SWIS[2] No. [SWFP Tier]	Facility Type	Owner	Operator	Permitted Daily Intake Capacity[3] (in tpd-6) [ ][4]
27	Waste Management South Gate Transfer Station	4489 Ardine Street, South Gate, CA 90280	19-AA-0856 [P]	Large Volume Transfer/ Processing Facility	H.B.J.J. Inc. (Subsidiary of USA Waste)	H.B.J.J. Inc. (Subsidiary of USA Waste)	2,000
28	Waste Resources Recovery	357 West Compton Boulevard, Gardena, CA 90248	19-AA-0857 [P]		Waste Resources Recovery, Inc.	Waste Resources Recovery, Inc.	500
29	West Valley Fibers	14811 Keswick Avenue, Van Nuys, CA 91405	19-AR-1261 [RP]	Medium Volume Transfer/Processing Facility	Potential Industries, Inc.	Potential Industries, Inc.	100
						TOTAL (MATERIALS RECOVERY FACILITIES)	**52,087**
			TRANSFER STATIONS[8]				
30	American Waste Transfer Station	1449 West Rosecrans Avenue, Gardena, CA 90249	19-AA-0001 [P]	Large Volume Transfer/ Processing Facility	Republic Services of California, LLC	Republic Services of California, LLC	2,225
31	Bel-Art Waste Transfer Station	2501 East 68th Street, Long Beach, CA 90805	19-AK-0001 [P]	Large Volume Transfer/ Processing Facility	Consolidated Disposal Services, LLC	Consolidated Disposal Services, LLC	1,500
32	Carson Transfer Station and Materials Recovery Facility	321 West Francisco Street, Carson, CA 90745	19-AQ-0001 [P]	Large Volume Transfer/ Processing Facility	USA Waste of California, Inc.	USA Waste of California, Inc.	5,300
33	Central Los Angeles Recycling Center and Transfer Station	2201 E. Washington Boulevard, Los Angeles, CA 90034	19-AR-1182	Large Volume Transfer/ Processing Facility	City of Los Angeles Bureau of Sanitation	City of Los Angeles, Bureau of Sanitation	4,025
34	City of Inglewood Transfer Station	222 West Beach Avenue, Inglewood, CA 90302	19-AA-0067 [RP]	Medium Volume Transfer/Processing Facility	City of Inglewood	City of Inglewood	100
35	Compton Recycling and Transfer Station	2509 West Rosecrans Avenue, Compton, CA 90059	19-AA-0048 [P]	Large Volume Transfer/ Processing Facility	B.F.I. Waste Systems of North America, Inc.	B.F.I. Waste Systems of North America, Inc.	1,500
36	Culver City Transfer and Recycling Station	9255 Jefferson Boulevard, Culver City, CA 90232	19-AA-0404 [P]	Large Volume Transfer/ Processing Facility	City of Culver City-Sanitation Division of Public Works Department	City of Culver City-Sanitation Division of Public Works Department	500
37	East Los Angeles Recycling and Transfer Station	1512 N. Bonnie Beach Place, City Terrace, CA 90063	19-AA-0845 [P]	Large Volume Transfer/ Processing Facility	Perdomo/BLT Enterprises, LLC c/o Consolidated Services, Inc.	Perdomo/BLT Enterprises, LLC c/o Consolidated Services, Inc.	700
38	East Street Maintenance District Yard	452 San Fernando Road, Los Angeles, CA 90065	19-AA-0816 [P]	Large Volume Transfer/ Processing Facility	City of Los Angeles Bureau of Street Maintenance	City of Los Angeles Bureau of Street Maintenance	[315]
39	EDCO Recycling and Transfer	2755 California Avenue, Signal Hill, CA 90755	19-AA-1112 [P]	Large Volume Transfer/ Processing Facility	Lee Family Trust; PhilEsp, LLC; Cockriel Family Trust (Robert W. Lee)	EDCO Transport Services	1,500
40	Granada Hills Street Maintenance District Yard	10210 Etiwanda Avenue, Northridge, CA 91325	19-AA-0817 [P]	Large Volume Transfer/ Processing Facility	City of Los Angeles Bureau of Street Maintenance	City of Los Angeles Bureau of Street Maintenance	[450]

8 "Transfer Stations" means 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. Facilities in this Table listed under the Transfer Stations category are facilities listed in the SWIS database as Transfer facilities, or Direct Transfer Facilities.

TABLE 4-7:
ListofMaterialsRecoveryFacilities,TransferStations,Construction,DemolitionandInertDebrisProcessingFacilities, and Anaerobic Digestion Facilities in Los Angeles County in 2018 (Cont.)

TABLE 4-7: List[1] of Materials Recovery Facilities, Transfer Stations, Construction, Demolition and Inert Debris Processing Facilities, Composting/Chipping and Grinding Facilities and Anaerobic Digestion Facilities in Los Angeles County in 2018 (Cont.)

No.	Facility Name	Location	SWIS[2] No. [SWFP Tier]	Facility Type	Owner	Operator	Permitted Daily Intake Capacity[3] (in tpd-6) [ ][4]
41	Innovative Waste Control (potential rail loading capability)	4133 Bandini Boulevard, Vernon, CA 90023	19-DE-0001 [P]	Large Volume Transfer/ Processing Facility	Consolidated Disposal Services, LLC	Consolidated Disposal Services, LLC.	1,250
42	South Gate Transfer Station	9530 South Garfield Avenue, South Gate, CA 90280	19-AA-0005 [P]	Large Volume Transfer/ Processing Facility	Sanitation Districts of Los Angeles County	County Sanitation Districts of Los Angeles County	1,000
43	Southwest Street Maintenance District Yard	5860 South Wilton Place, Los Angeles, CA 90047	19-AA-0818 [P]	Large Volume Transfer/ Processing Facility	City of Los Angeles Bureau of Street Maintenance	City of Los Angeles Bureau of Street Maintenance	[225]
44	Universal Waste Systems Inc. DTF	2460 East 24th Street, Los Angeles, CA 90058	19-AR-1251 [RP]	Direct Transfer Facility[10]	John Pabigian	Universal Waste Systems Inc.	150
45	Van Nuys Street Maintenance District Yard	15145 Oxnard Street, Van Nuys, CA 91411	19-AA-0814 [P]	Large Volume Transfer/ Processing Facility	City of Los Angeles Bureau of Street Maintenance	City of Los Angeles Bureau of Street Maintenance	[225]
46	Western District Satellite Yard	6000 West Jefferson Blvd., Los Angeles, CA 90016	19-AR-5585 [RP]	Direct Transfer Facility	City of Los Angeles Bureau of Sanitation	City of Los Angeles Bureau of Sanitation	149
						TOTAL (TRANSFER STATIONS)	**21,114**
CONSTRUCTION, DEMOLITION AND INERT (CDI) DEBRIS PROCESSING FACILITIES[11]							
47	American Industrial Services, LLC	5626 Cherry Avenue, Long Beach, CA 90805	19-AA-1125 [RP]	Medium Volume CDI Debris Processing Facility	American Industrial Inc.	American Industrial Inc.	173
48	American Reclamation CDI Processing Facility	4560 Doran Street, Los Angeles, CA 90039	19-AR-1241 [RP]	Medium Volume CDI Debris Processing Facility	Glendale Metals and Recycling, Inc.	American Reclamation, Inc.	174
49	California Waste Services, LLC	621 West 152nd Street, Gardena, CA 90247	19-AR-1225 [R]	Large Volume CDI Debris Processing Facility[12]	Harbor Redondo, LLC	California Waste Services, LLC	1,000
50	Clean Up America	2900 Lugo Street, Los Angeles, CA 90023	19-AR-1252 [RP]	Medium Volume CDI Debris Processing Facility	Merco, LLC (Mike Meraz)	Clean Up America	174
51	Commercial Waste Services, Inc.	1530 and 1540 Date Street, Montebello, CA 90640	19-AA-1131 [RP]	Medium Volume CDI Debris Processing Facility	Commercial Waste Services, Inc.	Commercial Waste Services, Inc. (Aaron Petrosian)	175
52	Construction & Demolition Recycling, CDI	9309 Rayo Avenue, South Gate, CA 90280	19-AA-1077 [P]	Large Volume CDI Debris Processing Facility	Interior Removal Specialists, Incorporated	Interior Removal Specialists, Incorporated	3,000

10 "Direct Transfer Facility" refers to a transfer facility that receives each operating day an amount of solid waste equal to, or more than, 60 cubic yards or 15 tons (whichever is greater) but less than 150 tons, and the facility meets the standards specified in CCR, Title 14, Section 17402(3).

11 "CDI Debris Processing Facility" means a site that receives any combination of Construction and Demolition debris, and Type A inert debris per operating day for the purposes of storage, handling, or processing. The facilities listed in this table under the CDI category are only those construction and demolition (C&D) debris recycling facilities in Los Angeles County classified as CDI facilities in the SWIS database. For a complete list of the C&D recycling facilities in Los Angeles County, see the Los Angeles County Construction and Demolition Debris Recycling and Reuse Program website: http://dpw.lacounty.gov/epd/CD/index.cfm.

12 "Large Volume CDI Debris Processing Facility" means a site that receives 175 tons or more of any combination of C&D debris and Type A inert debris per operating day for the purposes of storage, handling, transfer, or processing. "Type A inert debris" includes but is not limited to concrete (including fiberglass or steel reinforcing bar embedded in the concrete), fully cured asphalt, crushed glass, fiberglass, asphalt or fiberglass roofing shingles, brick, slag, ceramics, plaster, clay, and clay products. Type A inert debris is waste that does not contain soluble pollutants at concentrations in excess of water quality objectives and has not been treated in order to reduce pollutants.

TABLE 4-7:
ListofMaterialsRecoveryFacilities,TransferStations,Construction,DemolitionandInertDebrisProcessingFacilities, and Anaerobic Digestion Facilities in Los Angeles County in 2018 (Cont.)

TABLE 4-7: List[1] of Materials Recovery Facilities, Transfer Stations, Construction, Demolition and Inert Debris Processing Facilities, Composting/Chipping and Grinding Facilities and Anaerobic Digestion Facilities in Los Angeles County in 2018 (Cont.)

No.	Facility Name	Location	SWIS[2] No. [SWFP Tier]	Facility Type	Owner	Operator	Permitted Daily Intake Capacity[3] (in tpd-6) [ ][4]
53	Direct Disposal C&D Recycling	3720 Noakes Street, Los Angeles, CA 90023	19-AR-1228 [RP]	Small Volume CDI Debris Processing Facility	Daniel and Tamara Agajanian	Direct Disposal	120
54	Looney Bins/East Valley Diversion	11616 Sheldon Street, Sun Valley, CA 91352	19-AR-1223 [P]	Large Volume CDI Debris Processing Facility	Waste Management, Inc. (City of Los Department of Water/Power, Manager of Real Estate)	Looney Bins-USA Waste of California, Inc.	750
55	Looney Bins/Downtown Diversion	2424 Olympic Boulevard,Los Angeles, CA 90021	19-AR-1224 [P]	Large Volume CDI Debris Processing Facility	Waste Management, Inc.	Looney Bins-USA Waste of California, Inc.	1,500
						TOTAL (CONSTRUCTION, AND INERT DEBRIS PROCESSING FACILITIES)	**7,066**
				COMPOSTING[13]/CHIPPING AND GRINDING FACILITIES[14]			
56	American Reclamation Chipping and Grinding	4560 Doran Street, Los Angeles, CA 90039	19-AR-1242 [RP]	Medium Volume C&D Wood Debris Chipping and Grinding Operation	American Reclamation, Inc.	American Reclamation, Inc.	499
57	Burbank Green Waste Transfer Operation	3000 Bel Aire Drive, Burbank, CA 91504	19-AA-1072 [EAN]	Chipping and Grinding Operation	City of Burbank Public Works Department	City of Burbank Public Works Department	200
58	Evergreen Recycling, Inc.	8700 Crocker Street, Los Angeles, CA 90003	19-AR-1249 [EAN]	Chipping and Grinding Operation	Evergreen Recycling, Inc.	Evergreen Recycling, Inc.	200
59	Foothill Soils, Inc.	22925 N. Coltrane Street, Newhall, CA 91350	19-AA-5608 [EAN]	Composting Operation	Foothill Soil Inc.	Foothills Soils Inc.	200
60	Greencycle, Inc.	12815 E. Imperial Hwy, Santa Fe Springs, CA 90670	19-AA-1093 [EAN]	Chipping and Grinding Operation	Jones, Gregory M.	Jones, Gregory M.	200
61	GS Brothers, Inc.	20331 South Main Street, Carson, CA 90745	19-AA-1066 [EAN]	Composting Operation	GS Brothers, Inc.	GS Brothers, Inc.	100
62	GWS, Inc.	10120 Miller Way, South Gate, CA 90280	19-AA-1064 [EAN]	Composting Operation	GWS, Inc.	GWS, Inc.	250
63	Harbor Mulching Facility	1400 N Gaffey Street, San Pedro, CA 90731	19-AR-1220 [EAN]	Composting Operation	City of Los Angeles Bureau of Sanitation	City of Los Angeles Bureau of Sanitation	120
64	Lopez Canyon Environmental Center	11950 Lopez Canyon Road, Los Angeles, CA 91342	19-AR-1222 [EAN]	Composting Operation	City of Los Angeles PW Bureau of Sanitation	City of Los Angeles Bureau of Sanitation	1,000
65	North Hills Recycling, Inc.	11700 Blucher Avenue, Granada Hills, CA 91345	19-AR-1232 [RP]	Chipping and Grinding Operation	North Hills Recycling, Inc.	North Hills Recycling, Inc.	499

13 "Composting Facilities" mean a permitted solid waste facility at which composting is conducted and which produces a product meeting the definition of 'compost' in [PRC] section 40116.

14 "Chipping and Grinding Operations and Facilities" means an operation or facility, that does not produce compost that mechanically reduces the size or otherwise engages in the handling, of compostable material (CCR Title 14, Section 17852 (10).

TABLE 4-7:
ListofMaterialsRecoveryFacilities,TransferStations,Construction,DemolitionandInertDebrisProcessingFacilities, and Anaerobic Digestion Facilities in Los Angeles County in 2018 (Cont.)

TABLE 4-7: List[1] of Materials Recovery Facilities, Transfer Stations, Construction, Demolition and Inert Debris Processing Facilities, Composting/Chipping and Grinding Facilities and Anaerobic Digestion Facilities in Los Angeles County in 2018 (Cont.)

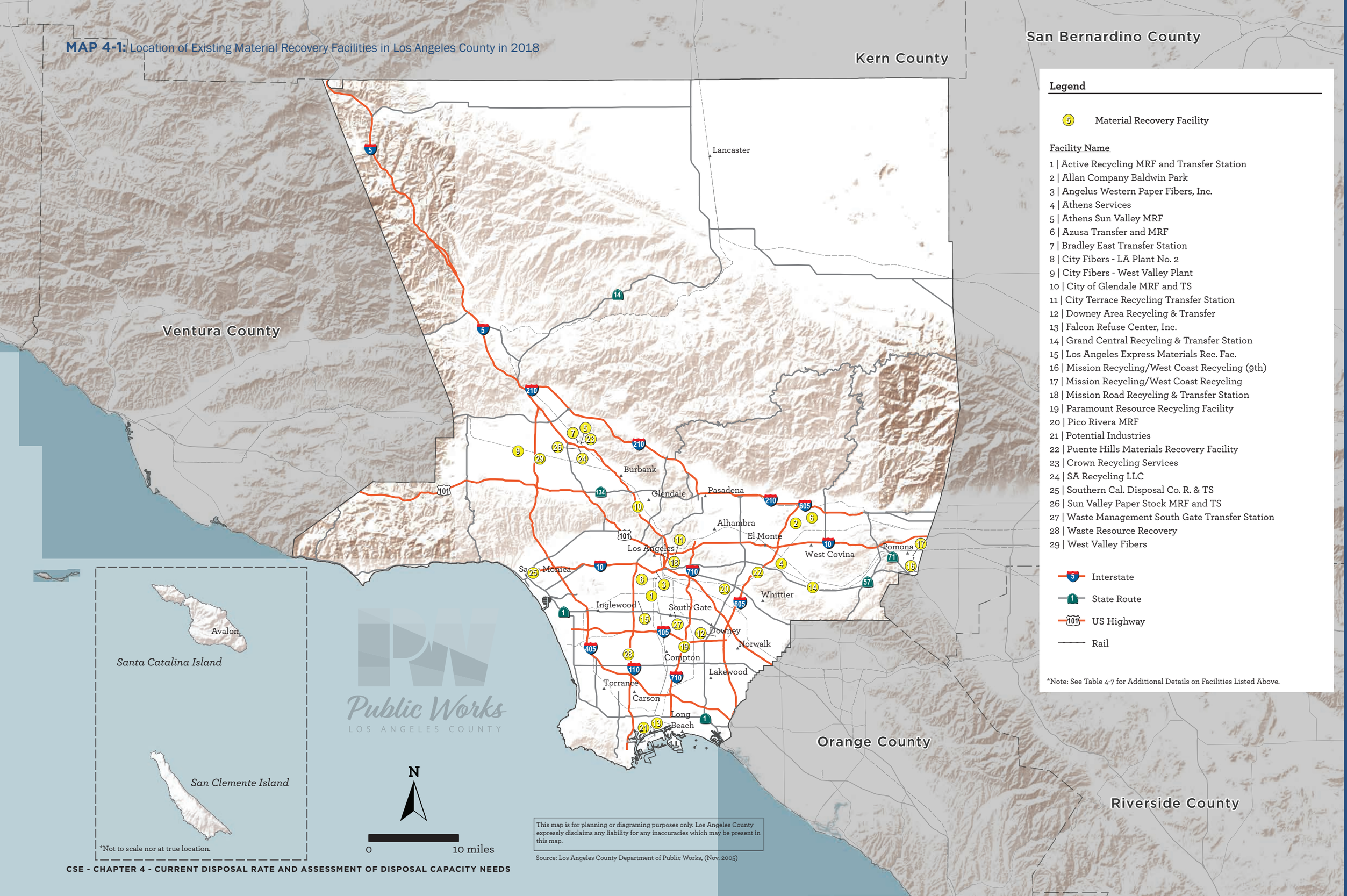
No.	Facility Name	Location	SWIS[2] No. [SWFP Tier]	Facility Type	Owner	Operator	Permitted Daily Intake Capacity[3] (in tpd-6) [ ][4]
66	Norwalk Industries Green Waste Operation	13780 East Imperial Highway, Santa Fe Springs, CA 90670	19-AA-1062 [RP]	Chipping and Grinding Operation	Norwalk Industries, L.P.	Norwalk Industries, L.P.	499
67	Oak Tree Worm Farm Chip and Grind (Compost)	13326 Little Tujunga Canyon Road, Canyon Country (in Santa Clarita), CA 91342	19-AA-1136 [EAN]	Chipping and Grinding Operation	Oak Tree Worm Farm	Oak Tree Worm Farm	200
68	Recycled Wood Products	1313 East Phillips Boulevard	19-AA-1076 [EAN]	Chipping and Grinding Operation	Recycled Wood Products, Inc.	Recycled Wood Products, Inc.	200
69	Rent-A-Bin (Chipping and Grinding Operation)	20745 Santa Clara Street, Santa Clarita, CA 91351	19-AA-1097 [EAN]	Small Volume CDI Processing Operation	Randfam	Randfam	199
70	RJ's Alondra Chipping and Grinding Operation	355 W Alondra Boulevard, Gardena, CA 90248	19-AA-1116 [EAN]	Chipping and Grinding Operation	RJ's Demolition and Disposal	RJ's Demolition and Disposal	200
71	RJ's Chipping and Grinding Operation	1135 East Florence Avenue, Inglewood. CA 90302	19-AA-1115 [EAN]	Chipping and Grinding Operation	RJ's Demolition and Disposal	RJ's Demolition and Disposal	200
72	Van Norman Chipping and Grinding Facility	15751 Rinaldi Street, Granada Hills, CA 91344	19-AR-1226	Chipping and Grinding Operation	City of Los Angeles Bureau of Street Services	City of Los Angeles Bureau of Street Services	499
						TOTAL (COMPOSTING/CHIPPING AND GRINDING FACILITIES)	**5,265**
			ANAEROBIC DIGESTION[15] FACILITIES				
73	Joint Water Pollution Control Plant/ Food Waste AD Demonstration Facility	24501 S. Figuerora Street, Carson, CA 90745	N/A	Wastewater Treatment Plant[16]	County Sanitation District No. 2 of Los Angeles County	County Sanitation District No. 2 of Los Angeles County	84
74	Ralphs Renewable Energy Facility	2201 S Wilmington Avenue, Compton, CA 90220	19-AA-1122 [EAN]	Distribution Center In-Vessel Digestion Operation	Ralphs Grocery Company	Ralphs Grocery Company	350
						TOTAL (ANAEROBIC DIGESTION FACILITIES)	**434**

15 Anaerobic digestion means the controlled biological decomposition of organic material in the absence of oxygen or in an oxygen-starved environment. Anaerobic digestion produces biogas and a residual digestate (CCR Title 14, Section 17896.2 (7)(B).

16 Joint Water Pollution Control Plant provides both primary and secondary treatment for approximately 260 million gallons of wastewater per day (mgd), and has a total permitted capacity of 400 mgd. Solids collected in Primary Treatment and Secondary Treatment are processed in anaerobic digestion tanks where bacteria break down organic material and produce methane gas. After digestion, the solids are dewatered at Solids Processing and hauled off-site to composting, land application, and landfill disposal.

TABLE 4-7:
ListofMaterialsRecoveryFacilities,TransferStations,Construction,DemolitionandInertDebrisProcessingFacilities, and Anaerobic Digestion Facilities in Los Angeles County in 2018 (Cont.)

MAP 4-1: Location of Existing Material Recovery Facilities in Los Angeles County in 2018



Legend

5 Material Recovery Facility

Facility Name

1 | Active Recycling MRF and Transfer Station
2 | Allan Company Baldwin Park
3 | Angelus Western Paper Fibers, Inc.
4 | Athens Services
5 | Athens Sun Valley MRF
6 | Azusa Transfer and MRF
7 | Bradley East Transfer Station
8 | City Fibers - LA Plant No. 2
9 | City Fibers - West Valley Plant
10 | City of Glendale MRF and TS
11 | City Terrace Recycling Transfer Station
12 | Downey Area Recycling & Transfer
13 | Falcon Refuse Center, Inc.
14 | Grand Central Recycling & Transfer Station
15 | Los Angeles Express Materials Rec. Fac.
16 | Mission Recycling/West Coast Recycling (9th)
17 | Mission Recycling/West Coast Recycling
18 | Mission Road Recycling & Transfer Station
19 | Paramount Resource Recycling Facility
20 | Pico Rivera MRF
21 | Potential Industries
22 | Puente Hills Materials Recovery Facility
23 | Crown Recycling Services
24 | SA Recycling LLC
25 | Southern Cal. Disposal Co. R. & TS
26 | Sun Valley Paper Stock MRF and TS
27 | Waste Management South Gate Transfer Station
28 | Waste Resource Recovery
29 | West Valley Fibers

Interstate
State Route
US Highway
Rail

*Note: See Table 4-7 for Additional Details on Facilities Listed Above.

This map is for planning or diagraming purposes only. Los Angeles County expressly disclaims any liability for any inaccuracies which may be present in this map.

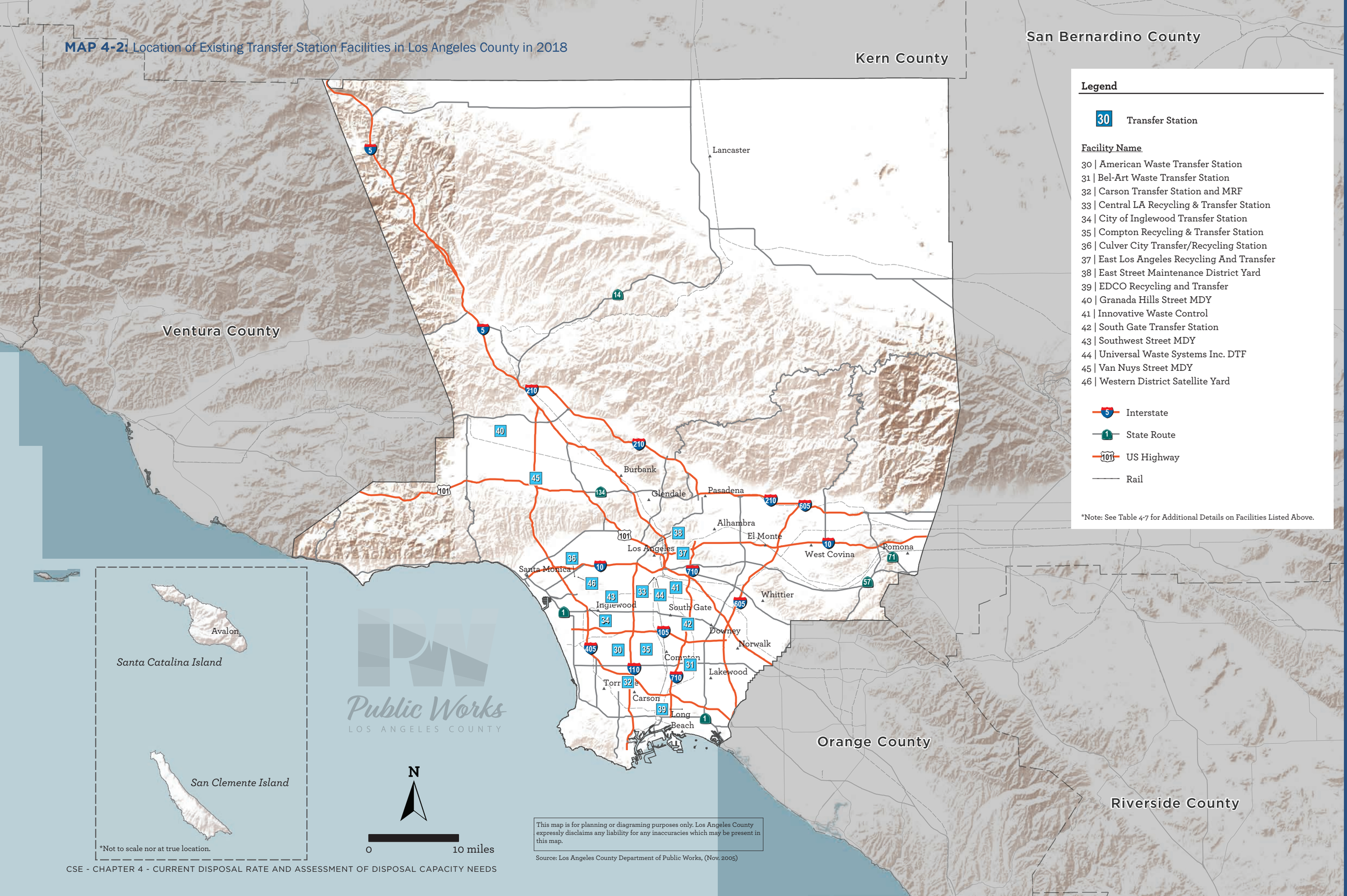
Source: Los Angeles County Department of Public Works, (Nov. 2005)

MAP 4-1: Location of Existing Material Recovery Facilities in Los Angeles County in 2018

Public Works
LOS ANGELES COUNTY

MAP 4-1:
Location of Existing Material Recovery Facilities in Los Angeles County in 2018

MAP 4-2: Location of Existing Transfer Station Facilities in Los Angeles County in 2018



Legend

30 Transfer Station

Facility Name

30 | American Waste Transfer Station
31 | Bel-Art Waste Transfer Station
32 | Carson Transfer Station and MRF
33 | Central LA Recycling & Transfer Station
34 | City of Inglewood Transfer Station
35 | Compton Recycling & Transfer Station
36 | Culver City Transfer/Recycling Station
37 | East Los Angeles Recycling And Transfer
38 | East Street Maintenance District Yard
39 | EDCO Recycling and Transfer
40 | Granada Hills Street MDY
41 | Innovative Waste Control
42 | South Gate Transfer Station
43 | Southwest Street MDY
44 | Universal Waste Systems Inc. DTF
45 | Van Nuys Street MDY
46 | Western District Satellite Yard

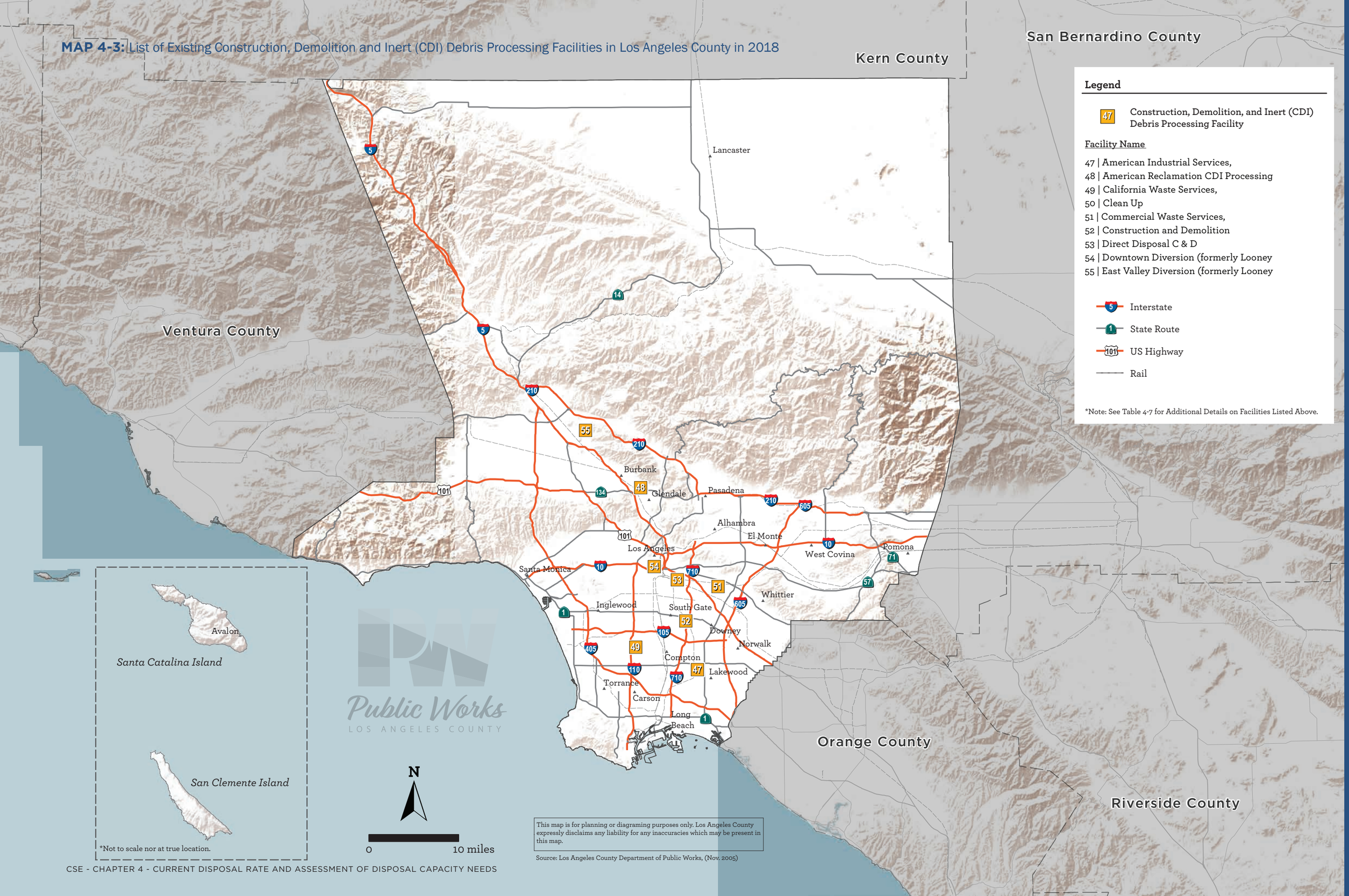
Interstate
State Route
US Highway
Rail

*Note: See Table 4-7 for Additional Details on Facilities Listed Above.

MAP 4-2: Location of Existing Transfer Station Facilities in Los Angeles County in 2018

MAP 4-2:
Location of Existing Transfer Station Facilities in Los Angeles County in 2018

MAP 4-3: List of Existing Construction, Demolition and Inert (CDI) Debris Processing Facilities in Los Angeles County in 2018



Legend

47 Construction, Demolition, and Inert (CDI) Debris Processing Facility

Facility Name

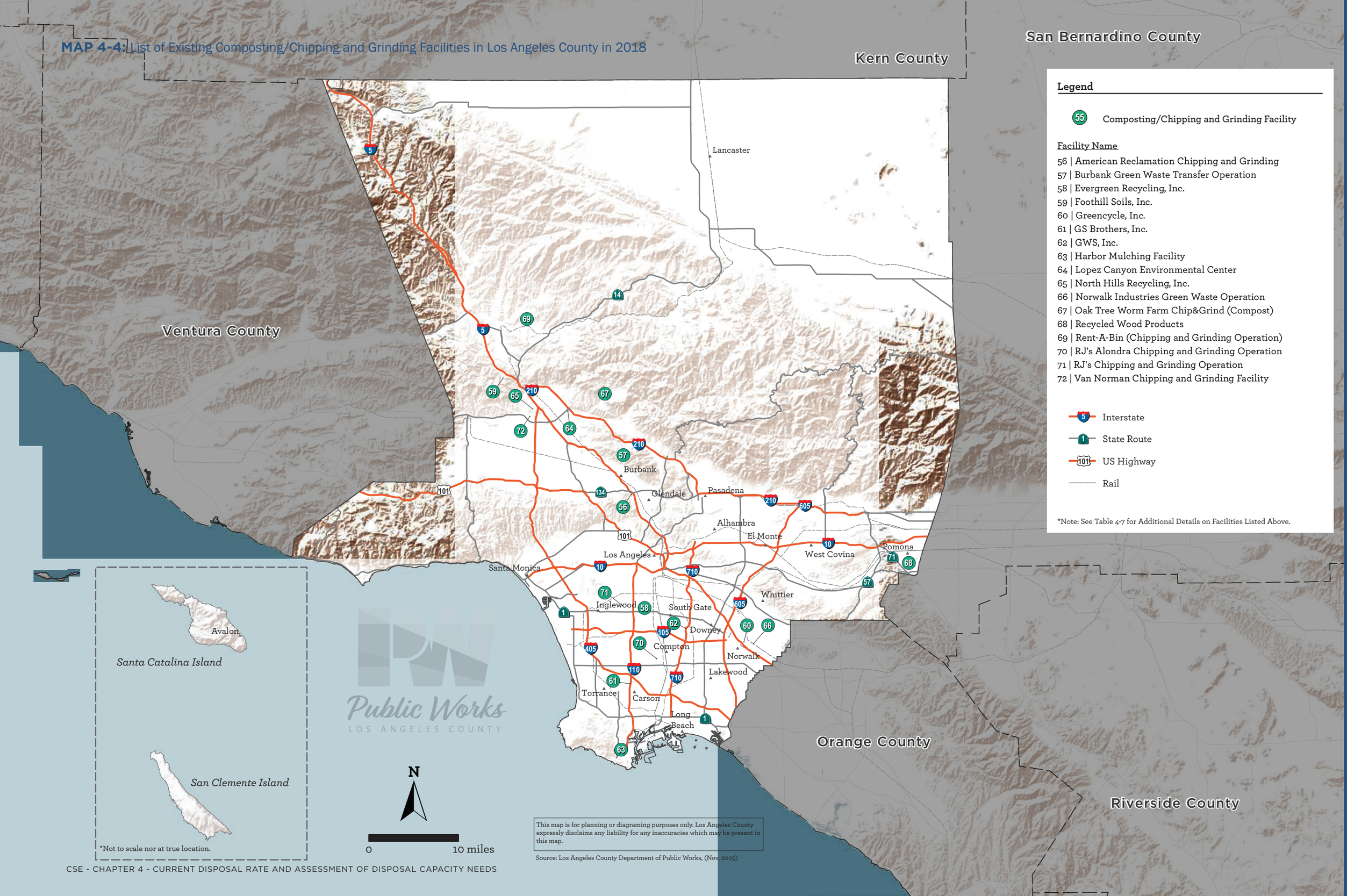
47 | American Industrial Services,
48 | American Reclamation CDI Processing
49 | California Waste Services,
50 | Clean Up
51 | Commercial Waste Services,
52 | Construction and Demolition
53 | Direct Disposal C & D
54 | Downtown Diversion (formerly Looney
55 | East Valley Diversion (formerly Looney

Interstate
State Route
US Highway
Rail

*Note: See Table 4-7 for Additional Details on Facilities Listed Above.

MAP 4-3:
List of Existing Construction, Demolition and Inert (CDI) Debris Processing Facilities in Los Angeles County in 2018

MAP 4-4: List of Existing Composting/Chipping and Grinding Facilities in Los Angeles County in 2018



Legend

55 Composting/Chipping and Grinding Facility

Facility Name

56 | American Reclamation Chipping and Grinding
57 | Burbank Green Waste Transfer Operation
58 | Evergreen Recycling, Inc.
59 | Foothill Soils, Inc.
60 | Greencycle, Inc.
61 | GS Brothers, Inc.
62 | GWS, Inc.
63 | Harbor Mulching Facility
64 | Lopez Canyon Environmental Center
65 | North Hills Recycling, Inc.
66 | Norwalk Industries Green Waste Operation
67 | Oak Tree Worm Farm Chip&Grind (Compost)
68 | Recycled Wood Products
69 | Rent-A-Bin (Chipping and Grinding Operation)
70 | RJ's Alondra Chipping and Grinding Operation
71 | RJ's Chipping and Grinding Operation
72 | Van Norman Chipping and Grinding Facility

Interstate
State Route
US Highway
Rail

*Note: See Table 4-7 for Additional Details on Facilities Listed Above.

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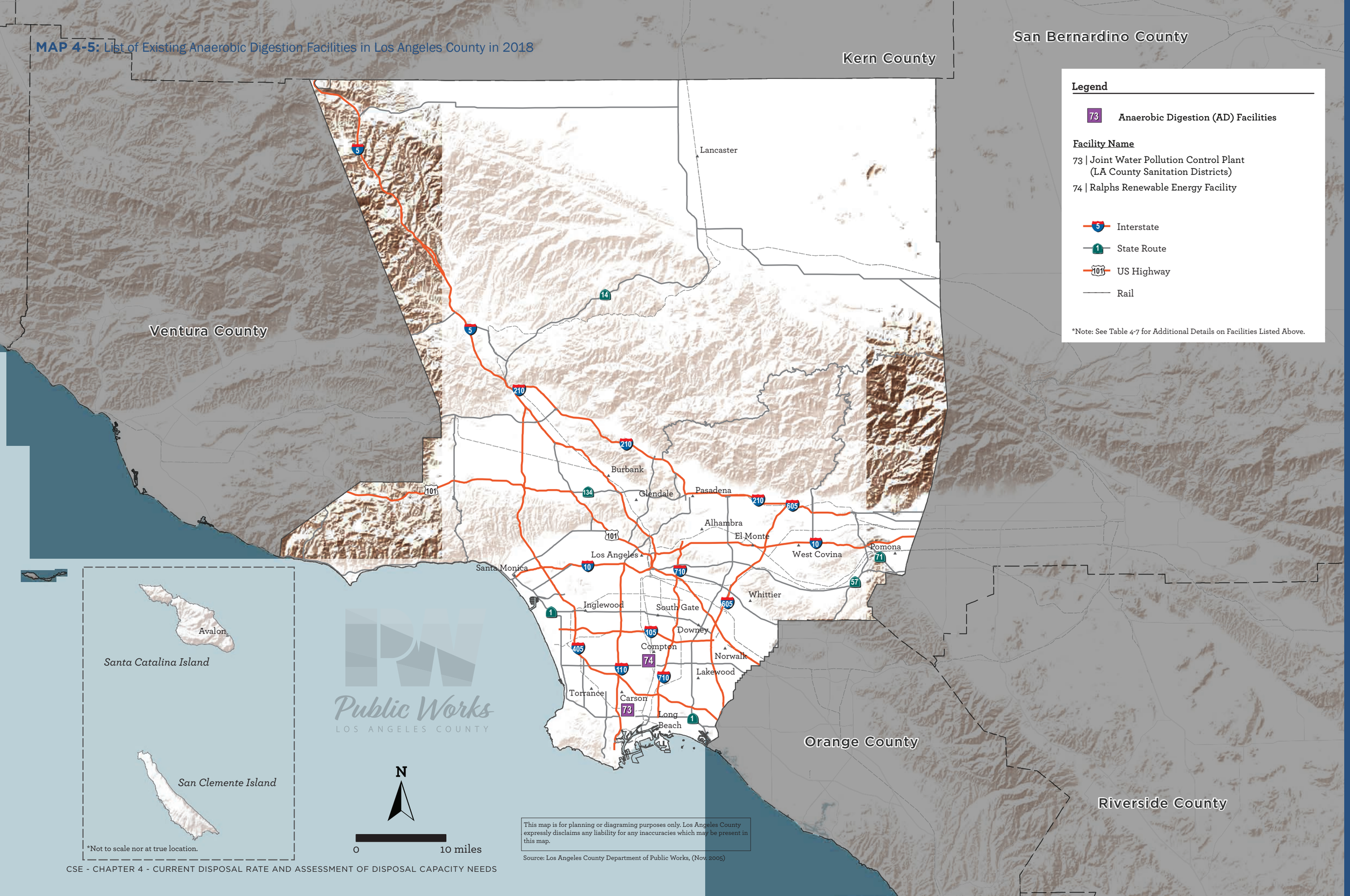
LOS ANGELES COUNTY

MAP 4-4:
List of Existing Composting/Chipping and Grinding Facilities in Los Angeles County in 2018

MAP 4-5: List of Existing Anaerobic Digestion Facilities in Los Angeles County in 2018



Legend

73 Anaerobic Digestion (AD) Facilities

Facility Name

73 | Joint Water Pollution Control Plant (LA County Sanitation Districts)

74 | Ralphs Renewable Energy Facility

Interstate

State Route

US Highway

Rail

*Note: See Table 4-7 for Additional Details on Facilities Listed Above.

MAP 4-5: List of Existing Anaerobic Digestion Facilities in Los Angeles County in 2018

Public Works
LOS ANGELES COUNTY

MAP 4-5:
List of Existing Anaerobic Digestion Facilities in Los Angeles County in 2018

4.8 DISPOSAL CAPACITY NEED ANALYSIS

4.8.1 Disposal Capacity Need Analysis

The disposal capacity need analysis allows a comparison of the projected date when a shortfall in the daily permitted disposal capacity is expected to occur for the various scenarios. To accurately predict when a shortfall in total disposal capacity will be experienced, it is necessary to compare the maximum permitted daily capacity available with the County's daily disposal requirements, with full consideration of the facilities' restrictions/constraints.

The disposal capacity need analysis is presented in six scenarios described in Section 4.10 and analyzed in 4.10.1 through 4.10.7, and summarized in Sections 4.11, **Table 4-8**, and **Figure 4-4** The analysis considers factors listed and discussed in this Chapter, the disposal capacity needs for the County as a whole, and the total disposal capacity at all disposal facilities countywide.

4.8.2 Disposal Capacity Need Analysis Methodology

The disposal capacity need analysis methodology involves multiple steps and various factors. The major steps and factors are as follows:

- Base year: Determine the base year (2018) based on the best available data and information (e.g., SWIMS, latest available landfill survey, and 2018 Annual Report data).
- Planning period: Determine the planning period (2018-2033) based on the best available data and information (e.g., SWIMS, latest available landfill survey, and 2018 Annual Report data). For the purpose of the CSE, the planning period begins in the year 2018 and ends in the year 2033.
- Base year waste disposal: Determine the amount of solid waste generated within the County that is: (1) disposed at in-County Class III landfills and transformation facilities (excluding disposal at inert waste landfills), and (2) disposed at out-of-County disposal facilities. (See Section 4.5.1, **Tables 4-4** and **4-9**.)
- Base year solid waste generation: Determine the amount of solid waste generated in the County in the base year (i.e., 95,996 tpd in 2018) using the actual base year disposal rate (excluding disposal at inert waste landfills), assuming 65 percent diversion rate, and excluding imports. (See **Table 4-9**.) There is no CalRecycle approved countywide per capita generation rate; therefore, for the purposes of the CSE, the solid waste generation rate of 95,996 tpd is being used.
- Solid waste generation projection factors: Determine the solid waste projection generation factors based on the latest University of California, Los Angeles (UCLA) Anderson Long-Term Forecast for Los Angeles County (dated July 2018) for population, employment, and taxable sales; or other approved indices and forecasts. (See Section 4.5.3, **Table 4-10** and **Figure 4-3**.)
- Solid waste generation projection: Determine the amount of solid waste that would be generated for each year during the planning period using the CalRecycle-approved **Adjustment Methodology**. (See Sections 4.9.2 and 4.9.3 and **Table 4-10**.)

- Solid waste disposal capacity requirement: Determine the Class III landfill cumulative annual disposal capacity requirements (see **Table 4-6**) during the planning period, and the year the remaining permitted combined disposal capacity of existing solid waste disposal facilities in the County would be exhausted, assuming 65 percent diversion rate, in-place density/conversion factor of 1,200 pounds per cubic yard, and subtracting the available transformation facility capacity. (See Section 4.5 and **Table 4-4**.)
- Daily solid waste generation rate: Determine the daily solid waste generation rate for each year during the planning period, based on the annual waste generation tonnage, and assuming 312 operating days per year (i.e., 6-day per week average). (See **Tables 4-6** and **4-10**.)
- Disposal capacity need analysis scenarios: Determine the various disposal capacity analysis scenarios. (See Section 4.10, Scenario Nos. I to VI, **Tables 4-11** through **4-16**).
- Total **daily disposal demand:** For each scenario, determine the total daily disposal demand based on the daily solid waste generation rate and the assumed diversion rates for the scenario.
- Class III landfill daily disposal demand: For each scenario, determine the Class III landfill remaining daily disposal capacity demand from the total daily disposal need by: (1) adding daily waste import rate, (2) subtracting the maximum daily transformation facility capacity, (3) subtracting the maximum available daily alternative technology capacity, and (4) subtracting the out-of-County exports.
- Total in-County Class III landfill available capacity: For each scenario, determine the total available capacity from existing Class III landfills in the County by: (1) adding the daily disposal rate for all the existing landfills (using average disposal rate for landfills with wasteshed and maximum permitted daily disposal rate for the rest of the landfills), (2) assuming 312 operating days per year (i.e., 6-day per week average), and (3) taking into consideration all landfill expansions and closures. (See columns 1 to 11 of **Tables 4-11** to **4-16**)
- Remaining capacity at year's end: For each scenario, determine the remaining capacity in each year during the planning period for the existing Class III landfills in the County by: (1) adding the remaining permitted landfill capacity for the existing Class III landfills in the County, and (2) taking into consideration all landfill expansions and closures (see columns 1-11 of **Tables 4-11** to **4-16**). The total expected remaining permitted landfill capacity for the subsequent years is determined by using the maximum permitted daily disposal rate and assuming 312 operating days per year (i.e., 6-day per week average).
- Additional out-of-County disposal capacity: Determine additional **available out-of-County disposal capacity** (i.e., potential waste-by-rail capacity) during the planning period. (See **Chapter 9**, **Table 9-1**.)
- Class III landfill **daily disposal capacity shortfall (reserve):** For each scenario, determine the daily disposal capacity shortfall (reserve) by subtracting the Class III landfill daily disposal demand from the total in-County Class III landfill available capacity (See **Tables 4-11** to **4-16**)

Key Terms

Adjustment Method:
Refers to a formula for annually estimating jurisdiction solid waste tons generated. Chapter 1292, Statutes of 1992 (Sher, AB 2494) required the California Department of Resources Recycling and Recovery (CalRecycle) to develop a standard methodology so that jurisdictions would have a cost-effective way to estimate how much waste they generate. (See Public Resources Code (PRC) Section 41780.1.) CCR, Title 14, Chapter 9, Article 9.1, requires that population, employment, taxable sales, and Consumer Price Index be used in the adjustment method formula.

Daily Disposal Demand
Refers to the amount of solid waste generated less the amount diverted by means of reuse, recycling, or composting based on a six-day-per-week operation at permitted solid waste disposal facilities.

Available Out-of-County Disposal Capacity:
Refers to the amount of solid waste generated in Los Angeles County that can be accepted by the out-of-County Class III landfills potentially available for out-of-County disposal of solid waste from Los Angeles County.

Daily Disposal Capacity Shortfall
Refers to the daily amount of solid waste in need of disposal in excess of available in-County and out-of-County disposal capacity.

TABLE 4-8: Summary of Description of Disposal Capacity Need Analysis Scenarios Assuming AB 939 Diversion is Fully Implemented and No New Class III Landfills in Los Angeles County during the Planning Period

Scenario / Assumption	Existing Permitted In-County Class III Landfill Capacity	Increased Diversion Rate[1]	Exports to Out-of-County Landfills	Utilization of Additional Alternative Technology Capacity	Increase in Exports to Out-of-County Landfills
Scenario I Utilization of Permitted In-County Disposal Capacity Only	✓				
Scenario II Status Quo Scenario	✓		✓		
Scenario III Meeting CalRecycle's Statewide Disposal Target of 2.7 PPD	✓	✓	✓		
Scenario IV Meeting Senate Bill 1383 Organic Waste Disposal Reduction Targets	✓	✓	✓		
Scenario V Utilization of Additional Alternative Technology Capacity	✓		✓	✓	
Scenario VI Increase in Exports to Out-of-County Landfills (Excluding Potential Waste-by-Rail Capacity)	✓		✓		✓
Scenario VII All solid Waste Management Options Considered Become Available	✓	✓	✓	✓	✓

1. Scenario III assumes an increase in diversion rate (83 percent by 2020) in order to meet CalRecycle's Statewide Disposal Target of 2.7 pounds. per person per day. Scenario IV assumes an increase in diversion rate (74 percent by 2020) in order to meet Senate Bill 1383 Organic Waste Disposal Reduction Targets..

Source: Los Angeles County Public Works.

Public Works
LOS ANGELES COUNTY

TABLE 4-8:
Summary of Description of Disposal Capacity Need Analysis Scenarios Assuming AB 939 Diversion is Fully Implemented and No New Class III Landfills in Los Angeles County during the Planning Period

TABLE 4-9: Solid Waste Generation by Los Angeles County Jurisdictions in 2018 Based on Class III Landfills and Transformation Facilities' Disposal Quantities (Excluding Inert Waste Landfills)*

Year	In-County Disposal		Out-of County Class III Landfills (Exports)	Total Disposal A+B+C*	Countywide Diversion Rate	Calculated 2018 Solid Waste Generation
	Class III Landfills	Transformation Facilities				
	A	B	C	D	E	F
	TONS	TONS	TONS	TONS	%	TONS
2018	4,995,296	366,642	5,120,871	10,482,809	65	29,950,883

Source: Los Angeles County Public Works.

Column A	Total disposal at Class III landfills in Los Angeles County. Does not include waste imported from jurisdictions outside the county.
Column B	Total disposal at transformation facilities in Los Angeles County. Does not includes waste imported from jurisdictions outside the county.
Column C	Waste exported by jurisdictions in Los Angeles County to disposal facilities located outside the county.
Column D	Columns A + B + C
Column E	Countywide Diversion Rate of 65 percent is assumed based on "State of Disposal in California" report by CalRecyle as Statewide diversion rate.
Column F	Column D ÷ Column E. This estimate is used to project the County's Class III landfill and transformation disposal needs through the year 2033.
*	Data from permitted inert waste landfills is excluded from these calculations.

Generally, the amount of solid waste generated is proportional to population and/or economics.

TABLE 4-10: Los Angeles County Solid Waste Generation Projections for the Planning Period (2018-2033)

YEAR	POPULATION	EMPLOYMENT	REAL TAXABLE SALES	B-Y RWG	B-Y NWG	RAF	NAF	TOTAL GENERATION (TONS)
2018	10,347,600	4,504,100	$134,100,000,000	8,985,265	20,965,618	-	-	29,950,883
2019	10,404,900	4,589,800	$132,800,000,000	8,985,265	20,965,618	1.005101971	1.004666425	30,094,560
2020	10,452,000	4,637,000	$134,900,000,000	8,985,265	20,965,618	1.013912685	1.017736073	30,447,740
2021	10,514,800	4,611,700	$130,200,000,000	8,985,265	20,965,618	1.006780811	0.997403286	29,957,369
2022	10,577,800	4,636,700	$130,300,000,000	8,985,265	20,965,618	1.011399048	1.000551391	30,064,867
2023	10,641,300	4,685,000	$133,100,000,000	8,985,265	20,965,618	1.022368268	1.016353143	30,494,722
2024	10,705,200	4,724,100	$137,400,000,000	8,985,265	20,965,618	1.035642591	1.036726444	31,041,134
2025	10,769,400	4,764,600	$141,500,000,000	8,985,265	20,965,618	1.048636261	1.056509447	31,572,648
2026	10,834,000	4,805,500	$148,200,000,000	8,985,265	20,965,618	1.06651859	1.086031111	32,352,266
2027	10,899,000	4,845,300	$150,500,000,000	8,985,265	20,965,618	1.076156358	1.099024998	32,711,288
2028	10,964,400	4,884,700	$153,000,000,000	8,985,265	20,965,618	1.086164109	1.112720193	33,088,339
2029	11,030,200	4,923,600	$155,500,000,000	8,985,265	20,965,618	1.096163435	1.126359882	33,464,150
2030	11,096,400	4,964,400	$158,200,000,000	8,985,265	20,965,618	1.106660405	1.140956203	33,864,489
2031	11,160,700	5,007,400	$160,900,000,000	8,985,265	20,965,618	1.117187677	1.155796746	34,270,220
2032	11,225,500	5,050,500	$163,700,000,000	8,985,265	20,965,618	1.127931088	1.171021246	34,685,944
2033	11,290,600	5,094,200	$166,600,000,000	8,985,265	20,965,618	1.138908725	1.186685208	35,112,986

Notes:

Population: Countywide Population Projection (UCLA, Long Term Forecast of Los Angeles County, July 2018)

Employment: Countywide Employment Projection (UCLA, Long Term Forecast of Los Angeles County, July 2018)
*Employment data from UCLA only accounts for non-farm employment.

Real Taxable Sales: Countywide Taxable Sales (Source of information is UCLA, Long Term Forecast of Los Angeles County, July 2018).
*Real Taxable Sales data from UCLA considers the real dollar value. (Real Taxable Sales)

B-Y RWG: Base Year Residential Waste Generation. Calculation based on California 2008 Statewide Waste Characterization Study. Single-family and multifamily residential waste together account for 30 percent of the state's waste stream.

B-Y NWG: Base Year Non-Residential Waste Generation. Calculation based on California 2008 Statewide Waste Characterization Study (All other sources account for 70 percent of the state's total waste stream).

RAF: Residential Adjustment Factor = {(PR/PB)+[ER/EB+(CB/CR*TR/TB)]/2}/2

NAF: Non-Residential Adjustment Factor = [ER/EB+(CB/CR*TR/TB)]/2

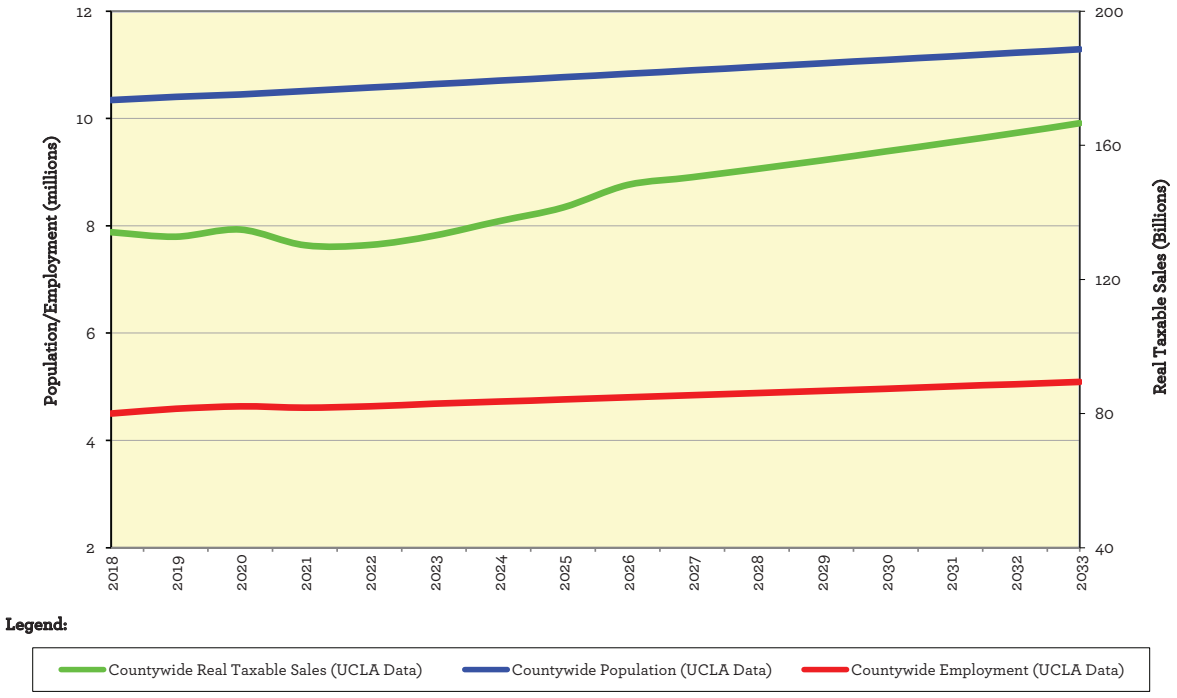
The Adjustment Methodology Formula as adopted by the CIWMB is expressed as follows:

Estimated Reporting Year Solid Waste Generation = {[(B-Y RWG) (RAF)] + [(B-Y NWG)(NAF)]}

PR:	Reporting Year Population	PB:	Base Year Population
ER:	Reporting Year Employment	EB:	Base Year Employment
CR:	Reporting Year Consumer Price Index	CB:	Base Year Consumer Price Index
TR:	Reporting Year Taxable Sales	TB:	Base Year Taxable Sales

TABLE 4-10:
Los Angeles County Solid Waste Generation Projections for the Planning Period (2018-2033)

FIGURE 4-3: Graph of Population, Employment, Taxable Sales, and Solid Waste Generation Projection in Los Angeles County



1 Population, Employment and Taxable Sales are based on Countywide Population, Employment and Taxable Sales Projection from the UCLA Long Term Forecast of Los Angeles County, dated July 2018.

2 See Table 4-6 for projection data.

4.8.3 Class III Landfill Restrictions

Factors that severely hinder the accessibility of available Class III landfill permitted disposal capacity include: expiration of the LUP, WDR Permit, SWFP, and Air Quality Permits; restrictions on the acceptance of waste generated outside jurisdictional and/or wasteshed 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 wasteshed restrictions, including restriction on origin of waste by the host jurisdiction. For example, as discussed in **Chapter 3** and further summarized in **Table 4-4**, Savage Canyon 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 of Burbank crews. Moreover, Calabasas and Scholl Canyon Landfills only accept solid waste generated within their defined wastesheds, and San Clemente Landfill is not open to the public.

Other critical factors that greatly impact a landfill operation include the daily quantity of solid waste that a landfill facility can accept (permitted daily capacity) and permitted disposal capacity as established by local jurisdictions/regulatory agencies. Under these circumstances, if no expansions of existing facilities occur or alternative technology facilities are developed, and waste disposal continues to increase, the County will experience shortfalls in permitted daily disposal capacity.

4.8.4 California Senate Bill 1016 (SB 1016)

With the implementation of California Senate Bill 1016 (SB 1016), CalRecycle no longer calculates diversion rate based on actual disposal and estimated annual generation using its Adjustment Methodology. Instead, per capita disposal equivalent is calculated using an approved jurisdiction-specific average of per capita generation rates for years 2003 to 2006.

4.9 DISPOSAL NEED PROJECTIONS FOR THE PLANNING PERIOD (2018 – 2033)

CCR, Title 14, Section 18755.3 (b) requires a description of the anticipated disposal capacity needs for the 15-year planning period beginning with the year the CSE is prepared, and in any year the CSE is revised.

4.9.1 Base Year Waste Generation and Disposal

The year 2018 is used as the base year for projecting future waste generation quantities because it is the year for which the most current and complete disposal data is available.

In 2018, the approximate total disposal quantity distribution (of solid waste originating within the County) among the various types of disposal facilities were as follows:

In-County Class III Landfills	4,995,296 tons
In-County Transformation Facilities	366,642 tons
In-County Permitted Inert Waste Landfill	291,876 tons
Exports to Out-of-County Class III Facilities	5,120,871 tons
Total Amount Disposed	**10,774,686 tons**

In summary, jurisdictions within the County disposed of approximately 10,482,809 tons of solid waste at transformation facilities and Class III landfills located in and out of the County (excluding inert waste disposed at a permitted inert waste landfill). **Table 4-9** shows the 2018 disposal quantities for solid waste disposed at in-County Class III landfills and transformation facilities. Out-of-County exports to Class III landfills are also taken into consideration. The 2018 solid waste generation of 29,950,883 tons (the basis of the solid waste generation projections) was calculated assuming a diversion rate of 65 percent. This estimate of waste generation excludes disposal at the inert waste landfills that do not have Full or Registration tier SWFPs.

The above disposal quantities for solid waste generated in the County translate into a 2018 average disposal rate of approximately 33,599 tpd (six days per week) Countywide (i.e., 16,011 tpd at Class III landfills, 1,175 tpd at transformation facilities, and 16,413 tpd exported to out-of-County Class III landfills). The disposal quantities at the permitted inert waste landfill translate to approximately 936 tpd. **Table 4-4** lists existing permitted landfills and transformation facilities, and the quantities of solid waste disposed that originated within the County.

In addition, approximately 776 tpd (6 days per week) were imported for disposal at in-County Class III landfills, the permitted inert waste landfill, and transformation facilities.

In order to determine the 2018 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.

The latest (i.e., 2006) CalRecycle–approved diversion rate for the entire County was 58 percent. However, for the purposes of the disposal capacity need analysis in this Chapter, a diversion rate of up to 65 percent (unless otherwise noted) was assumed for the planning period (2018 to 2033).

4.9.2 Waste Generation Projection Methodology

A number of alternatives were considered for use in projecting Countywide waste generation for the 2018-2033 planning period. These include use of the waste generation growth factors from each jurisdiction's Source Reduction and Recycling Element (SRRE), an adaptation of CalRecycle's Adjustment Methodology, and waste generation growth rates based on population growth projections.

The use of growth factors from each jurisdiction's SRRE was 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 that are either difficult to emulate or that may now be outdated.

Other methodologies, such as the projection of per capita waste generation in conjunction with population trends, were not used because they fail to consider 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 the County can be attributed to economic activity (i.e., about 70 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 consider this important factor. For example, linearly projecting the per capita waste generation data for 2006 through 2010 (a recessionary period) and using the projected per capita waste generation figures to project total waste generation, incorrectly assumes that the recession in the later part of 2007 would continue into the future without any economic recovery.

The use of growth rates based on population growth projections was considered since population projections are available from the California Department of Finance through the year 2033. However, projections based on population growth fail to account for economic downturns or a resumption of strong economic growth, 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 CalRecycle's Adjustment Methodology, which is described below.

4.9.2.1 Description of the Adjustment Methodology

PRC, Section 41780.1(c), mandates that before measuring compliance with the solid waste diversion goal of 50 percent for the years 1995 and 2000, respectively, each jurisdiction must use a CalRecycle-approved standard Adjustment Methodology when calculating their maximum allowable disposal quantity for the year.

The CalRecycle-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 tool to measure their progress in reducing solid waste disposal and to estimate future disposal quantities.

The Adjustment Methodology 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 rates 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 Methodology formula as adopted by CalRecycle is expressed as follows:

Estimated Solid Waste Generation for the Reporting Year[6] **=**

$$= [(B\text{-}Y\ RWG)\ (RAF)] + [(B\text{-}Y\ NWG)\ (NAF)]$$

Where:

- **B-Y RWG** = Base-Year Residential Waste Generation
- **B-Y NWG** = Base-Year Non-residential Waste Generation
- **RAF** = Residential Adjustment Factor = {(PR/PB) + [ER/EB+ (CB/CR*TR/TB)]/2}/2
- **NAF** = Non-residential Adjustment Factor = [ER/EB+ (CB/CR*TR/TB)]/2
- **PR** = Population in the Reporting Year
- **PB** = Population in the Base Year
- **ER** = Employment in the Reporting Year
- **EB** = Employment in the Base Year
- **CR** = Consumer Price Index in the Reporting Year
- **CB** = Consumer Price Index in the Base Year
- **TR** = Taxable Sales in the Reporting Year
- **TB** = Taxable Sales in the Base Year

Also note:

- Population is based on Countywide Population Projection[7];
- Employment is based on Countywide Employment Projection (which only accounts for non-farm employment)[8];
- Consumer Price Index ratio for the purpose of the CSE is considered as 1.0; and
- Taxable Sales is based on Countywide Real Taxable Sales (which is considered the real dollar value)[9].

It can be seen that the Adjustment Methodology 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 Adjustment Methodology allows the jurisdiction to develop and use locally-developed alternative data, countywide data, or other data that the jurisdiction deems representative of its situation.

6 The Estimated Solid Waste Generation for the Reporting Year formula and the variables in the formula are similar and consistent with the CalRecycle Adjustment Method Formula.
7 Source: UCLA Anderson Long-Term Forecast of Los Angeles County, July 2018.
8 See Footnote 8.
9 See Footnote 8.

4.9.3 Waste Generation Projection Factors

Projections of solid waste generation for the 15-year planning period were calculated using CalRecycle's Adjustment Methodology. The Adjustment Methodology was adopted for projecting waste generation by utilizing projections of future population, employment, and taxable sales. The graph in **Figure 4-3** shows the resulting projections for population, employment, and taxable sales.

The use of the Adjustment Methodology requires knowledge of the distribution of waste generation by sector (residential and non-residential). The use of the Adjustment Methodology to project waste generation requires projections of the above factors through the year 2033. The following discusses the best available data and how it was applied using the Adjustment Methodology.

4.9.3.1 Distribution of Waste Generation by Sector

No data is available on the distribution of waste generation by sector for 2006 and future years. However, the proposed new generation-based study year (2005) data provided in each jurisdiction's SRRE for the base year (2005) is used to determine the 2018 countywide waste generation distribution by sector. The distribution is as follows:

- Residential Waste Generation = 30 percent[10] of total waste generation
- Non-Residential Waste Generation = 70 percent[11] of total waste generation

The proposed generation-based study represents the current efforts by both the public and private sectors to divert generated materials from landfill disposal. The proposed diversion rate more accurately reflects the diversion taking place as a result of the countywide implementation of new and enhanced waste diversion, recycling, and education programs that has enhanced the waste diversion capabilities of the County.

4.9.3.2 Population Projections

The population projections for the County are available from the California Department of Transportation (CalTrans) and UCLA for each year during the planning period. The UCLA Anderson Long-Term Forecast of Los Angeles County, which indicates an approximate increase in population of 9 percent toward the end of the 15-year planning period, was used to yield slightly more conservative projections. The graph in **Figure 4-3** shows the resulting projections for population, employment, and taxable sales.

4.9.3.3 Employment

The employment projections are available from CalTrans and UCLA for each year during the planning period. However, CalTrans' projections and UCLA projections are nearly identical, with UCLA projecting an employment increase of approximately 13 percent by the end of the 15-year planning period. UCLA projections were used because the data has been recently updated, when compared to the data from CalTrans. The graph in **Figure 4-3** shows the resulting projections for population, employment, and taxable sales.

4.9.3.4 Taxable Sales

Countywide taxable sales projections are available from the UCLA Anderson Long-Term Forecast for Los Angeles County, for each year during the planning period. The figures were available in constant dollars and do not need to be further adjusted for inflation. The graph in **Figure 4-3** shows the resulting projections for population, employment, and taxable sales.

10 Residential percentage means that portion of a jurisdiction's waste stream created by single and multi-family residences. The percentage of residential versus non-residential waste to the total waste generation used herein, is based on California 2008 Statewide Waste Characterization Study; however, all data and percentages are subject to change as new information becomes available.

11 See Footnote 11 .

4.9.4 Waste Generation Projections for the Planning Period (2018-2033)

The resulting projections in waste generation, diversion, and disposal for each year of the 15-year planning period are shown in **Table 4-10**. This table also shows the needed Class III landfill disposal capacity for each year of the planning period. The analysis assumes that the County will be responsible for management of solid waste generated and disposed in the County. As such, the analysis does not take account for that portion of solid waste that is exported out-of-County nor does it consider any capacity for imported solid waste to the County.

4.10 DISPOSAL CAPACITY NEED ANALYSIS SCENARIOS

The disposal capacity need analysis presented below considers six scenarios which are briefly described and summarized in **Tables 4-8** and graphed in **Figures 4-4** through **4-6**.

The following major assumptions are made in all six scenarios:

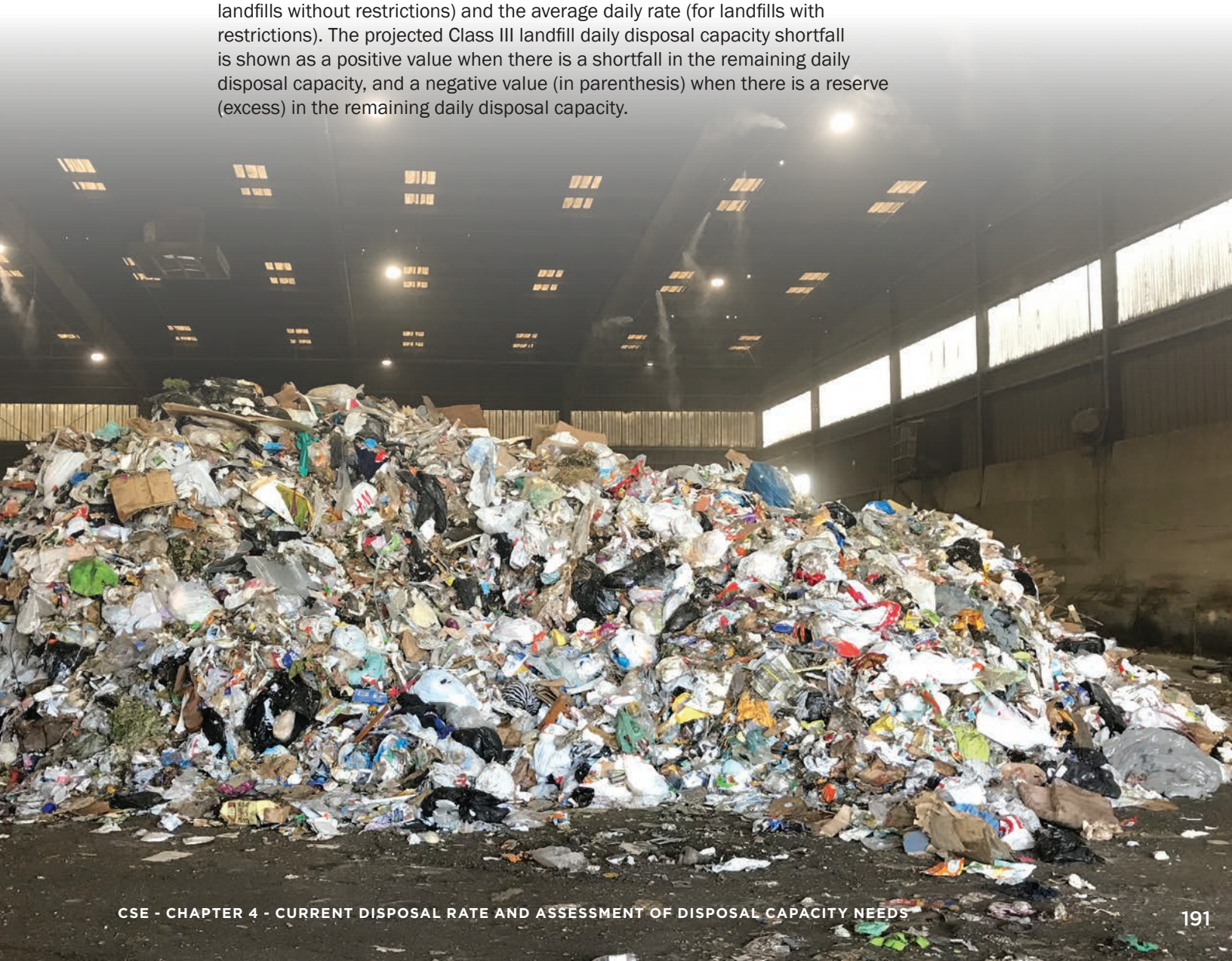
- The base year is 2018.
- The planning period is 2018-2033.
- The disposal need analysis period is 2018-2033.
- The existing Class III landfill capacity is based on the permitted capacity as determined in the permit (e.g., SWFP and CUP/LUP).
- Termination of landfill capacity is based on the most restrictive of the following factors: (1) exhaustion of permitted capacity, (2) completion of approved fill design, (3) expiration of permit (e.g., CUP/LUP, SWFP, WDR, and AQMD), and (4) the closure date. Both the closure date due to exhaustion of capacity (CC) and closure date due to permit expiration (CP) are shown in the disposal capacity need analysis table for all scenarios. (See **Table 4-11** through **4-16**).
- The permitted inert waste landfill and Inert Debris Engineered Fill Operations are not included in the disposal capacity need analysis.
- There are no new (or proposed expansion of existing) Class III landfill within the County during the planning period.
- Full implementation of California Assembly Bill 939 (AB 939) waste diversion programs and the achievement of the waste diversion mandate of 50 percent during the planning period. In addition, a potential increase in diversion rate is assumed in all scenarios upon considering that all jurisdictions in the County are required to comply with new state laws such as the mandatory commercial recycling (Assembly Bill 341) and diversion of organic waste from landfills (Assembly Bill 1826). Also, the potential development of composting and anaerobic digestion processing facilities in response to these laws is assumed to contribute to the increase in diversion rate. A diversion rate of 65 percent is assumed throughout the planning period.
- The 2018 average daily import rate is approximately 563 tpd. The import quantities for subsequent years are assumed at 600 tpd through the end of the planning period in 2033.
- Transformation facilities are assumed to operate at their average permitted daily capacity and their combined total capacity is shown in the scenario analysis tables.
- SERRF is assumed to operate at their average permitted daily capacity. CREF ceased its operation as of June 26, 2019.
- The Class III landfill remaining capacity at year's end is determined based on the expected average daily tonnage during the planning period.
- The 2018 remaining permitted capacity for each of the Class III landfill are based on data presented in **Table 4-4**.
- The daily disposal capacity shortfall (reserve) is determined based on maximum permitted daily disposal capacity. However, for the purpose of the analysis, the average daily disposal capacity is used as the maximum permitted daily disposal capacity for landfills with wasteshed restrictions.
- The amount of waste exported to out-of-County landfills in 2018 was approximately 16,413 tpd. Except for Scenario I, the available out-of-County disposal capacity for subsequent years is assumed at the same rate of export as

in 2018 through the end of the planning period (2033). The solid waste exports from the County are assumed to continue during the planning period regardless of the adequacy of in-County disposal capacity.

- The units of tons per day are assumed as the average daily tonnage, operating six days per week.

The portions of the disposal capacity need analysis scenario tables (see **Tables 4-11** to **4-16**) dealing with (1) in-County Class III landfills' maximum permitted, average daily, and remaining capacity; (2) total available capacity from Class III landfills; (3) available out-of-County disposal capacity; and (4) Class III landfill daily disposal capacity shortfall (reserve), are organized as follows:

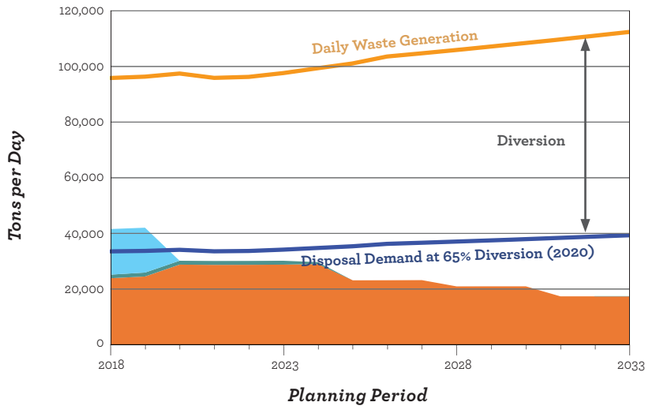
- Columns 1 through 10, under the "in-County Class III landfills", list the daily permitted capacity, average daily rate, and remaining daily capacity projected for each existing in-County Class III landfill for each year during the planning period.
- Column 11 shows the total in-County Class III landfill available capacity at the end of each year of the planning period for all in-County Class III landfills. The total permitted daily capacity is calculated based on the maximum permitted daily capacity (for landfills without restrictions) and the average daily rate (for landfills with restrictions).
- The last column shows the projected Class III landfill daily disposal capacity shortfall (reserve). The Class III landfill daily disposal capacity shortfall (reserve) analysis is calculated based on the maximum permitted daily capacity (for landfills without restrictions) and the average daily rate (for landfills with restrictions). The projected Class III landfill daily disposal capacity shortfall is shown as a positive value when there is a shortfall in the remaining daily disposal capacity, and a negative value (in parenthesis) when there is a reserve (excess) in the remaining daily disposal capacity.



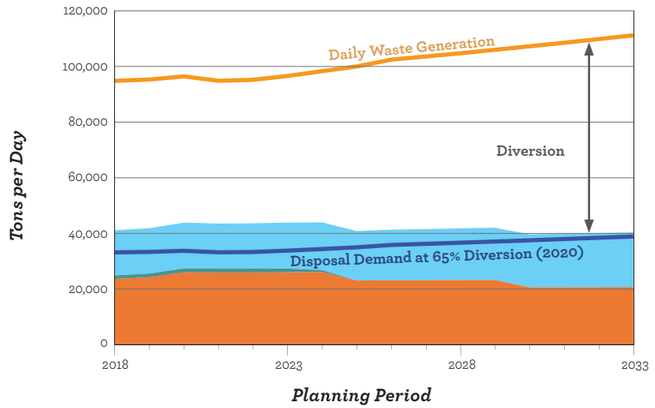

Santa Ana
EAST
Bernardino
Los Angeles

FIGURE 4-4: Graph of Solid Waste Disposal Capacity Projections for Each Scenario[1] for the Planning Period (2018-2033)

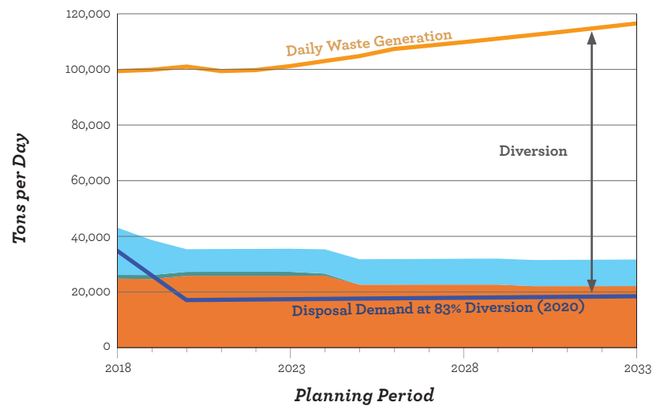
Scenario I — Utilization Of Existing In-County Disposal Capacity Only



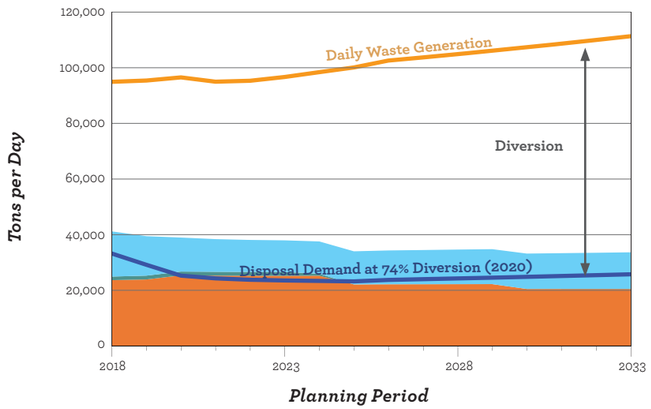
Scenario II — Status Quo



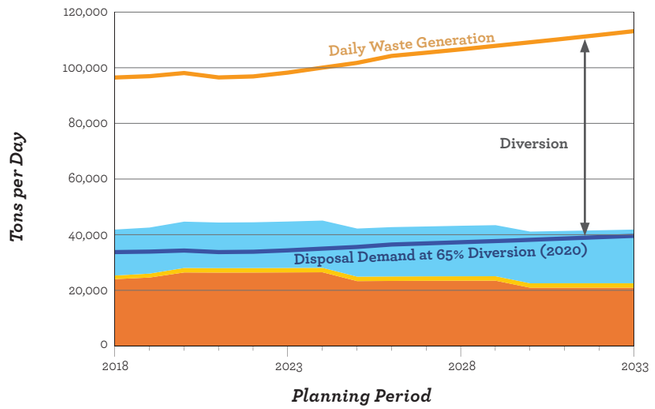
Scenario III — Meeting CalRecycle's Statewide Disposal Target Of 2.7 PPD



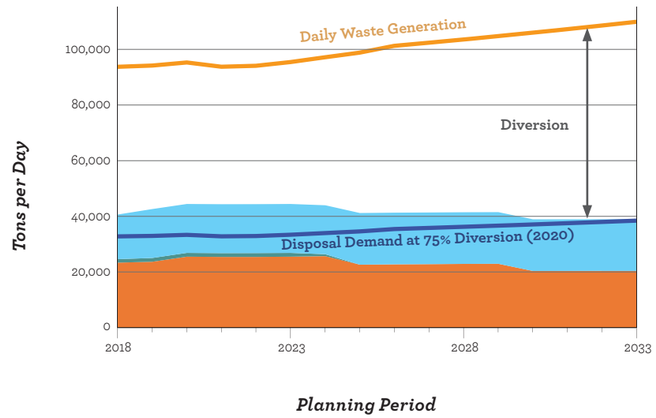
Scenario IV — Meeting Senate Bill 1383 Organic Waste Reduction Targets



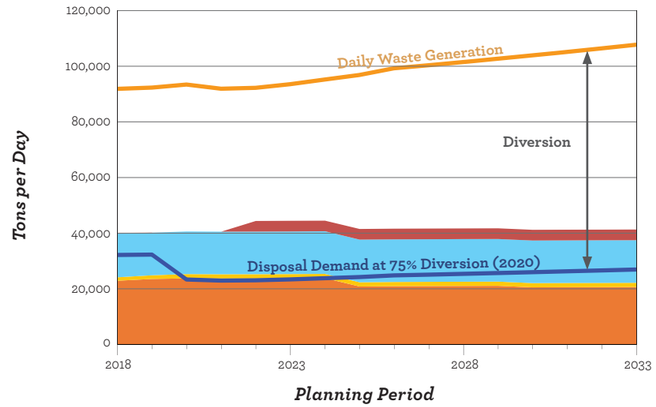
Scenario V — Utilization of Additional Alternative Technology Capacity



Scenario VI — Increase in Exports to Out-of-County Landfills (Excluding Potential Waste-by-Rail Capacity)



Scenario VII — All Solid Waste Management Options Considered Become Available



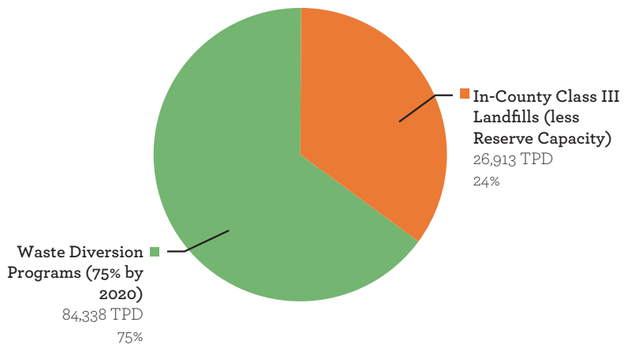
- In-County Class III Landfills Daily Disposal Capacity
- Transformation (Waste-to-Energy) Facility Daily Capacity
- Exports to Out-of-County Landfills
- Alternative Technology Facility Daily Capcity
- Waste-by-Rail Daily Capacity

1 See Chapter 4, Section 4.10 (Disposal Capacity Need Analysis Scenarios) and Table 4-9 (Summary of Description of Disposal Capacity Need Analysis Scenarios) for a detailed description of each scenario and assumptions.

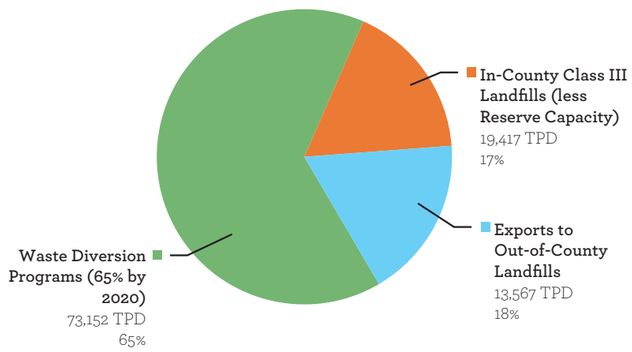
FIGURE 4-3:
Graph of Population, Employment, Taxable Sales, and Solid Waste Generation Projection in Los Angeles County

FIGURE 4-5: Los Angeles County Projected Solid Waste Disposal in 2033 for Each Scenario[1] for the Planning Period (2018-2033)

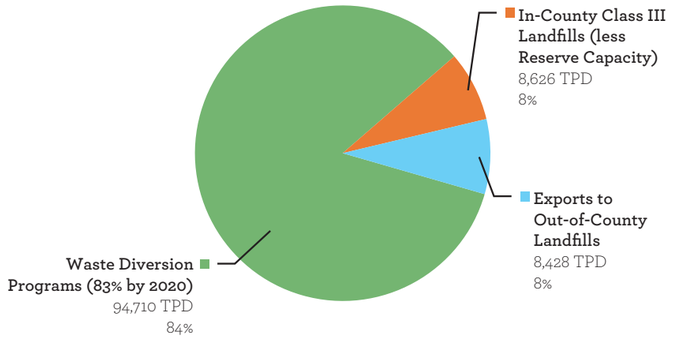
Scenario I — Utilization Of Existing In-County Disposal Capacity Only



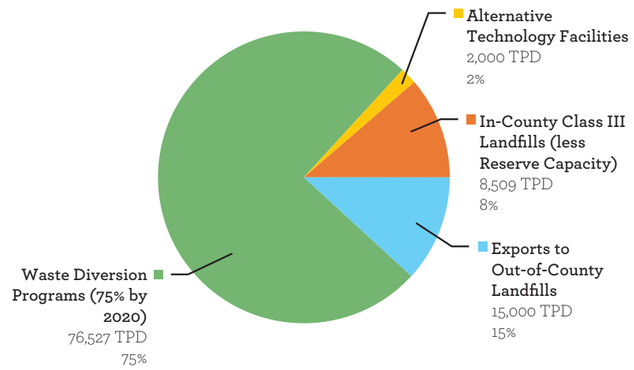
Scenario II — Status Quo



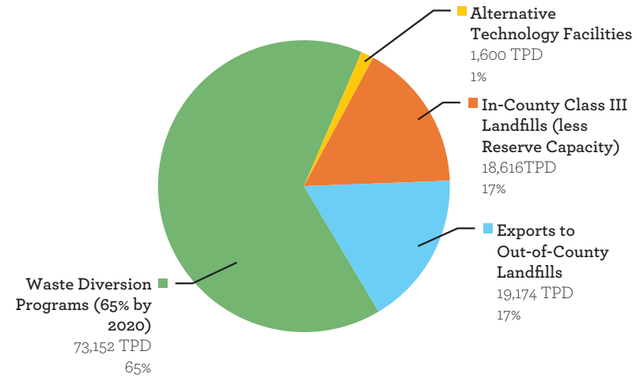
Scenario III — Meeting CalRecycle's Statewide Disposal Target Of 2.7 PPD



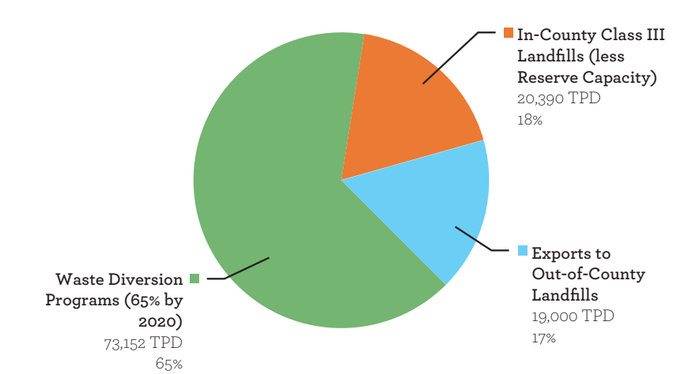
Scenario IV — Meeting Senate Bill 1383 Organic Waste Reduction Targets



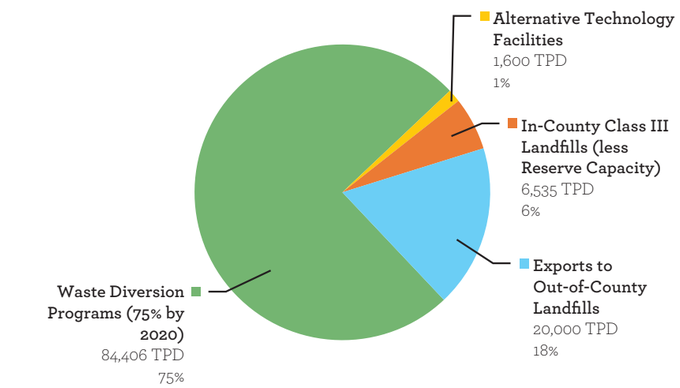
Scenario V — Utilization of Additional Alternative Technology Capacity



Scenario VI — Increase in Exports to Out-of-County Landfills (Excluding Potential Waste-by-Rail Capacity)



Scenario VII — All Solid Waste Management Options Considered Become Available



1 See Chapter 4, Section 4.10 (Disposal Capacity Need Analysis Scenarios) and Table 4-9 (Summary of Description of Disposal Capacity Need Analysis Scenarios) for a detailed description of each scenario and assumptions.

FIGURE 4-5:
Los Angeles County Projected Solid Waste Disposal in 2033 for Each Scenario for the Planning Period (2018-2033)

4.10.1 Scenario I – Utilization of Existing In-County Disposal Capacity Only

Scenario I assumes the following during the planning period: (1) all solid waste disposed will be managed by existing permitted in-County disposal infrastructure only (excluding disposal at inert waste landfills); (2) diversion rate remains constant at 65 percent; and (3) no expansions of existing in-County landfills. The analysis for Scenario I is presented in **Table 4-11** and **Figures 4-4** and **4-5**.

Based on these assumptions, reliance on existing permitted in-County disposal capacity alone would be insufficient to meet long-term needs. Therefore, a disposal capacity shortfall would be expected to occur during the planning period.

4.10.2 Scenario II - Status Quo

Scenario II assumes the following during the planning period: (1) use of existing in-County permitted disposal facilities (excluding disposal at inert waste landfills); (2) diversion rate remains constant at 65 percent; (3) utilization of out-of-County landfills (excluding additional disposal capacity through the waste-by-rail system); and (4) no proposed expansions of existing Class III landfills and/or transformation facilities. The analysis for Scenario II is presented in **Table 4-12** and **Figures 4-4** and **4-5**.

Based on these assumptions, a disposal capacity shortfall is not expected to occur during the planning period.

4.10.3 Scenario III - Meeting CalRecycle's Statewide Disposal Target of 2.7 pounds per person per day (ppd)

Scenario III assumes the following during the planning period: (1) use of existing in-County permitted disposal facilities (excluding disposal at inert waste landfills); (2) aggressive jurisdiction's diversion efforts (increasing countywide diversion rate to 83 percent by 2020) in order to achieve CalRecycle's Statewide disposal target of 2.7 ppd[12]; (3) utilization of out-of-County landfills; and (4) no proposed expansions of existing Class III landfills and/or transformation facilities. The analysis for Scenario III is presented in **Table 4-13** and **Figures 4-4** and **4-5**.

Based on these assumptions, a disposal capacity shortfall is not expected to occur during the planning period.

12 The 2.7 ppd disposal target is based on CalRecycle's Statewide disposal target described in CalRecycle's State of Disposal and State of Recycling in California reports released in March 2016.

As demonstrated by most of the scenarios, the County would be able to meet the disposal needs of all jurisdictions through the 15-year planning period.

TABLE 4-11: Scenario I - Utilization of Existing In-County Disposal Capacity Only

Disposal Capacity Need Analysis (Excluding Inert Waste Landfills)

- Existing In-County Class III Landfills and Transformation Facilities
- Diversion Rate at 65%
- No Utilization of Out-of-County Disposal Capacity

								1	2	3	4	5	6	7	8	9	10	11	
								In-County Class III Landfills											
Year	Waste Generation Rate[1]	Diversion Rate	Total Daily Disposal Demand	Imports from Other Counties	Daily Available Capacity Transformation Facilities[2]	Exports to Out-of-County Landfills [3]	Class III Landfill Daily Disposal Demand	Antelope Valley	R Burbank	R Calabasas	Chiquita	Lancaster	Pebbly Beach	R San Clemente	R Scholl	Sunshine City/County Combined	R Whittier (Savage Canyon)	Total In-County Class III Landfill Available Capacity[4] (tpd-6)	Class III Landfill Daily Disposal Capacity Shortfall (Reserve)
								Maximum Permitted Daily Capacity (tpd-6) Expected Average Daily Tonnage (tpd-6) Remaining Capacity at Year's End (Million Tons)										Total In-County Class III Landfill Remaining Capacity (million tons)	
	A	B	C=A(1-B)	D	E	F	G=C+D-E-F											H	I=G-H
	(tpd-6)		(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)											(tpd-6)	(tpd-6)
2018	95,996	65%	33,599	563	1,300	16,413	16,449	1,800	240	3,500	6,000	3,000	49	10	3,400	11,000	350	24,483	-
								1,636	102	985	4,560	367	12	1	1,292	6,765	290		
								12.0	2.3	4.9	59.8	10.2	0.05	0.04	4.3	65.3	4.6	163	
2019	96,457	65%	33,760	600	1,400	16,150	16,810	1,800	240	3,500	12,000	3,000	49	10	3,400	11,000	350	25,158	-
								1,672	104	1,007	6,616	375	12	1	1,321	6,914	297		
								11.5	2.2	4.6	57.7	10.1	0.04	0.04	3.9	63.1	4.5	158	
2020	97,589	65%	34,156	600	1,400	0	33,356	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	29,418	3,939
								3,317	207	1,998	6,616	743	24	2	2,620	13,719	350		
								10.4	2.2	4.0	55.6	9.9	0.04	0.03	3.1	58.8	4.4	148	
2021	96,017	65%	33,606	600	1,400	0	32,806	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	29,332	3,474
								3,263	203	1,965	6,616	731	24	2	2,577	13,493	344		
								9.4	2.1	3.4	53.6	9.7	0.03	0.03	2.3	54.6	4.3	139	
2022	96,362	65%	33,727	600	1,400	0	32,927	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	29,351	3,576
								3,275	204	1,972	6,616	734	24	2	2,587	13,542	345		
								8.4	2.0	2.7	51.5	9.4	0.02	0.03	1.5	50.4	4.2	130	
2023	97,739	65%	34,209	600	1,400	0	33,409	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	29,425	3,984
								3,323	207	2,001	6,616	745	24	2	2,625	13,741	350		
								7.4	2.0	2.1	49.4	9.2	0.01	0.03	0.6	46.1	4.1	121	
2024	99,491	65%	34,822	600	700	0	34,722	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	29,616	5,106
								3,453	215	2,080	6,616	774	25	2	2,728	14,281	350		
								6.3	1.9	1.5	47.4	9.0	0.01	0.03	CC	41.7	3.9	112	
2025	101,194	65%	35,418	600	0	0	36,018	3,600	240	3,500	12,000	3,000	49	10		11,000	350	23,769	12,249
								3,582	223	2,158	3,411	803	26	1		14,814	350		
								5.2	1.8	0.8	46.3	8.7	CC	0.04		37.0	3.8	104	
2026	103,693	65%	36,293	600	0	0	36,893	3,600	240	3,500	12,000	3,000		10		11,000	350	23,801	13,092
								3,600	229	2,210	3,411	822		1		15,174	350		
								4.1	1.8	0.1	45.2	8.4		0.03		32.3	3.7	96	
2027	104,844	65%	36,695	600	0	0	37,295	3,600	240	3,500	12,000	3,000		10		11,000	350	23,827	13,468
								3,600	231	2,234	3,411	831		1		15,339	350		
								2.9	1.7	CC	44.2	8.2		0.03		27.5	3.6	88	

Assumptions:

1 Waste Generation is estimated using CalRecycle's Adjustment Methodology, utilizing population projection, employment and real taxable sales projections from UCLA's Longterm Forecast, July 2018.

2 Daily Available Capacity from Transformation Facilities assume: (1) Southeast Resource Recovery Facility will continue at their current permitted daily capacity during the planning period and (2) Commerce Refuse to Energy Facility ceased its operation on June 2018.

3 The scenario assumes utilization of in-County disposal capacity only. A "Clean Hands Waiver (W)" was granted to Chiquita Canyon Landfill on March 17, 2016 to continue its operation while processing the landfill's new conditional use permit. On July 25, 2017, the Board of Supervisors approved a new Conditional Use Permit for the Landfill's Expansion Project.

4 Total In-County Class III Landfill Available Capacity is calculated based on Maximum Permitted Daily Capacity (in blue text) for facilities without a restricted wasteshed or Expected Average Daily Tonnage for facilities with a restricted wasteshed (R). Chiquita Canyon Landfill's expected average daily tonnage is based on the limits set on the new conditional use permit and therefore used to calculate the Total In-County Class III landfill Available Capacity.

5 This scenario considers the effect of Assembly Bill 1594 that removes diversion credit from green waste used as alternative daily cover (ADC) at landfills.

Legend:

CC/CP: Closure due to exhausted capacity (CC) or permit expiration (CP)

E: Expansion may become effective

R: Restricted wasteshed

W/WEClean Hands Waiver (W) or Waiver expiration (WE)

Public Works
LOS ANGELES COUNTY

TABLE 4-11:
Scenario I - Utilization of Existing In-County Disposal Capacity Only

TABLE 4-11: Scenario I - Utilization of Existing In-County Disposal Capacity Only (Cont.)

Disposal Capacity Need Analysis (Excluding Inert Waste Landfills)

- Existing In-County Class III Landfills and Transformation Facilities
- Diversion Rate at 65%
- No Utilization of Out-of-County Disposal Capacity

								1	2	3	4	5	6	7	8	9	10	11	
								In-County Class III Landfills											
Year	Waste Generation Rate[1]	Diversion Rate	Total Daily Disposal Demand	Imports from Other Counties	Daily Available Capacity Transformation Facilities[2]	Exports to Out-of-County Landfills [3]	Class III Landfill Daily Disposal Demand	Antelope Valley	R Burbank	R Calabasas	Chiquita	Lancaster	Pebbly Beach	R San Clemente	R Scholl	Sunshine City/County Combined	R Whittier (Savage Canyon)	Total In-County Class III Landfill Available Capacity[4] (tpd-6)	Class III Landfill Daily Disposal Capacity Shortfall (Reserve)
								Maximum Permitted Daily Capacity (tpd-6) Expected Average Daily Tonnage (tpd-6) Remaining Capacity at Year's End (Million Tons)										Total In-County Class III Landfill Remaining Capacity (million tons)	
	A	B	C=A(1-B)	D	E	F	G=C+D-E-F											H	I=G-H
	(tpd-6)		(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)											(tpd-6)	(tpd-6)
2028	106,052	65%	37,118	600	0	0	37,718	3,600	240		12,000	3,000		10		11,000	350	21,596	16,122
								3,600	234		3,411	841		1		11,000	350		
								1.8	1.6		43.1	7.9	CP	0.03		24.1	3.5	82	
2029	107,257	65%	37,540	600	0	0	38,140	3,600	240		12,000	3,000		10		11,000	350	21,598	16,541
								3,600	236		3,411	850		1		11,000	350		
								0.7	1.5	CP	42.0	7.7		0.03		20.7	3.4	76	
2030	108,540	65%	37,989	600	0	0	38,589	3,600	240		12,000	3,000		10		11,000	350	21,601	16,988
								3,642	239		3,411	860		1		11,000	350		
								CC	1.5		41.0	7.4		0.03		17.2	3.3	70	
2031	109,840	65%	38,444	600	0	0	39,044		240		12,000	3,000		10		11,000	350	18,004	21,040
									242		3,411	870		1		11,000	350		
									1.4		39.9	7.1		0.03		13.8	3.2	65	
2032	111,173	65%	38,911	600	0	0	39,511		240		12,000	3,000		10		11,000	350	18,007	21,504
									245		3,411	881		1		11,000	350		
									1.3		38.9	6.8		0.03		10.4	3.1	60	
2033	112,542	65%	39,390	600	0	0	39,990		240		12,000	3,000		10		11,000	350	18,010	21,980
									248		3,411	891		1		11,000	350		
									1.2		37.8	6.6		0.03		6.9	3.0	56	

Source: Los Angeles County Public Works.

TABLE 4-11:
Scenario I - Utilization of Existing In-County Disposal Capacity Only (Cont.)

TABLE 4-12: Scenario II - Status Quo

Disposal Capacity Need Analysis (Excluding Inert Waste Landfills)

•Existing In-County Class III Landfills and Transformation Facilities •Diversion Rate at 65% •Exports Based on Existing Export Agreements

								1	2	3	4	5	6	7	8	9	10	11	
								In-County Class III Landfills											
Year	Waste Generation Rate[1]	Diversion Rate	Total Daily Disposal Demand	Imports from Other Counties	Daily Available Capacity Transformation Facilities[2]	Exports to Out-of-County Landfills	Class III Landfill Daily Disposal Demand	Antelope Valley	R Burbank	R Calabasas	Chiquita	Lancaster	Pebbly Beach	R San Clemente	R Scholl	Sunshine City/County Combined	R Whittier (Savage Canyon)	Total In-County Class III Landfill Available Capacity[3] (tpd-6) Total In-County Class III Landfill Remaining Capacity (million tons)	Class III Landfill Daily Disposal Capacity Shortfall (Reserve)
								Maximum Permitted Daily Capacity (tpd-6) Expected Average Daily Tonnage (tpd-6) Remaining Capacity at Year's End (Million Tons)											
	A	B	C=A(1-B)	D	E	F	G=C+D-E-F											H	I=G-H
	(tpd-6)		(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)											(tpd-6)	(tpd-6)
2018	95,996	65%	33,599	563	1,300	16,413	16,449	1,800	240	3,500	6,000	3,000	49	10	3,400	11,000	350	24,483	-
								1,636	102	985	4,560	367	12	1	1,292	6,765	290		
								12.0	2.3	4.9	59.8	10.2	0.05	0.04	4.3	65.3	4.6	163	
2019	96,457	65%	33,760	600	1,400	16,462	16,498	1,800	240	3,500	12,000	3,000	49	10	3,400	11,000	350	25,107	-
								1,641	102	988	6,616	368	12	1.14	1,296	6,786	291		
								11.5	2.2	4.6	57.7	10.1	0.04	0.04	3.9	63.2	4.5	158	
2020	97,589	65%	34,156	600	1,400	16,660	16,696	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	26,939	(10,243)
								1,661	103	1,000	6,616	372	12	1.16	1,312	6,867	295		
								11.0	2.2	4.3	55.6	10.0	0.04	0.03	3.5	61.0	4.4	152	
2021	96,017	65%	33,606	600	1,400	16,385	16,421	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	26,894	(10,473)
								1,633	102	984	6,616	366	12	1.14	1,290	6,754	290		
								10.5	2.2	4.0	53.6	9.9	0.04	0.03	3.1	58.9	4.3	146	
2022	96,362	65%	33,727	600	1,400	16,445	16,481	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	26,904	(10,423)
								1,639	102	987	6,616	367	12	1.14	1,295	6,779	291		
								10.0	2.1	3.7	51.5	9.8	0.03	0.03	2.7	56.8	4.2	141	
2023	97,739	65%	34,209	600	1,400	16,686	16,723	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	26,943	(10,221)
								1,663	104	1,002	6,616	373	12	1.16	1,314	6,878	295		
								9.4	2.1	3.4	49.4	9.7	0.03	0.03	2.3	54.6	4.1	135	
2024	99,491	65%	34,822	600	700	17,342	17,380	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	27,051	(9,671)
								1,729	108	1,041	6,616	387	12	1.20	1,365	7,148	307		
								8.9	2.1	3.0	47.4	9.5	0.02	0.03	1.8	52.4	4.0	129	
2025	101,194	65%	35,418	600	0	17,989	18,029	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	23,951	(5,923)
								1,793	112	1,080	3,411	402	13	1.25	1,416	7,415	318		
								8.3	2.0	2.7	46.3	9.4	0.02	0.03	1.4	50.1	3.9	124	
2026	103,693	65%	36,293	600	0	18,426	18,467	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	24,023	(5,556)
								1,837	114	1,106	3,411	412	13	1.28	1,451	7,595	326		
								7.8	2.0	2.4	45.2	9.3	0.02	0.03	0.9	47.7	3.8	119	
2027	104,844	65%	36,695	600	0	18,627	18,668	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	24,056	(5,388)
								1,857	116	1,118	3,411	416	13	1.29	1,467	7,678	330		
								7.2	2.0	2.0	44.2	9.2	0.01	0.03	0.5	45.3	3.7	114	
2028	106,052	65%	37,118	600	0	18,838	18,880	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	24,090	(5,210)
								1,878	117	1,131	3,411	421	14	1.31	1,483	7,765	333		
								6.6	1.9	1.7	43.1	9.0	CP	0.03	0.0	42.9	3.6	109	

Assumptions:

1 Waste Generation is estimated using CalRecycle's Adjustment Methodology, utilizing population projection, employment and real taxable sales projections from UCLA's Longterm Forecast, July 2018.

2 Daily Available Capacity from Transformation Facilities assume: (1) Southeast Resource Recovery Facility will continue at their current permitted daily capacity during the planning period and (2) Commerce Refuse to Energy Facility ceased its operation on June 2018.

3 Total In-County Class III Landfill Available Capacity is calculated based on Maximum Permitted Daily Capacity (in blue text) for facilities without a restricted wasteshed or Expected Average Daily Tonnage for facilities with a restricted wasteshed (R). A "Clean Hands Waiver" was granted to Chiquita Canyon Landfill on March 17, 2016 to continue its operation while processing the landfill's new conditional use permit. On July 25, 2017, the Board of Supervisors approved a new Conditional Use Permit for the Landfill's Expansion Project. Chiquita Canyon Landfill's expected average daily tonnage is based on the limits set on the new conditional use permit and therefore used to calculate the Total In-County Class III landfill Available Capacity.

4 This scenario considers the effect of Assembly Bill 1594 that removes diversion credit from green waste used as alternative daily cover (ADC) at landfills.

CC/CP: Closure due to exhausted capacity (CC) or permit expiration (CP)

E: Expansion may become effective

R: Restricted wasteshed

W/WEClean Hands Waiver (W) or Waiver expiration (WE)

TABLE 4-12:
Scenario II - Status Quo

TABLE 4-12: Scenario II - Status Quo (Cont.)

Disposal Capacity Need Analysis (Excluding Inert Waste Landfills)

- Existing In-County Class III Landfills and Transformation Facilities
- Diversion Rate at 65%
- Exports Based on Existing Export Agreements

								1	2	3	4	5	6	7	8	9	10	11	
								In-County Class III Landfills											
Year	Waste Generation Rate[1]	Diversion Rate	Total Daily Disposal Demand	Imports from Other Counties	Daily Available Capacity Transformation Facilities[2]	Exports to Out-of-County Landfills	Class III Landfill Daily Disposal Demand	Antelope Valley	R Burbank	R Calabasas	Chiquita	Lancaster	Pebbly Beach	R San Clemente	R Scholl	Sunshine City/County Combined	R Whittier (Savage Canyon)	Total In-County Class III Landfill Available Capacity[3] (tpd-6)	Class III Landfill Daily Disposal Capacity Shortfall (Reserve)
								Maximum Permitted Daily Capacity (tpd-6) Expected Average Daily Tonnage (tpd-6) Remaining Capacity at Year's End (Million Tons)										Total In-County Class III Landfill Remaining Capacity (million tons)	
	A	B	C=A(1-B)	D	E	F	G=C+D-E-F											H	I=G-H
	(tpd-6)		(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)											(tpd-6)	(tpd-6)
2029	107,257	65%	37,540	600	0	19,049	19,091	3,600	240	3,500	12,000	3,000		10	3,400	11,000	350	24,111	(5,020)
								1,899	118	1,144	3,411	425		1.32	1,500	7,852	337		
								6.0	1.9	CP	42.0	8.9		0.03	CC	40.5	3.5	103	
2030	108,540	65%	37,989	600	0	19,273	19,316	3,600	240		12,000	3,000		10		11,000	350	21,473	(2,157)
								1,921	120		3,411	430		1.34		7,944	341		
								5.4	1.9		41.0	8.8		0.03		38.0	3.4	98	
2031	109,840	65%	38,444	600	0	19,501	19,544	3,600	240		12,000	3,000		10		11,000	350	21,478	(1,935)
								1,944	121		3,411	436		1.35		8,038	345		
								4.8	1.8		39.9	8.6		0.03		35.5	3.3	94	
2032	111,173	65%	38,911	600	0	19,733	19,777	3,600	240		12,000	3,000		10		11,000	350	21,484	(1,707)
								1,967	123		3,411	441		1.37		8,134	349		
								4.2	1.8		38.9	8.5		CP		32.9	3.2	89	
2033	112,542	65%	39,390	600	0	19,973	20,017	3,600	240		12,000	3,000				11,000	350	21,485	(1,468)
								1,991	124		3,411	446				8,233	350		
								3.6	1.7		37.8	8.3				30.4	3.1	85	

Source: Los Angeles County Public Works.

TABLE 4-12:
Scenario II - Status Quo (Cont.)

TABLE 4-13: Scenario III - Meeting CalRecycle's Statewide Disposal Target of 2.7 PPD

Disposal Capacity Need Analysis (Excluding Inert Waste Landfills)

•Existing In-County Class III Landfills and Transformation Facilities •Diversion Rate (83% by 2020) •Exports Based on Existing Export Agreements

									1	2	3	4	5	6	7	8	9	10	11		
									In-County Class III Landfills												
Year	Waste Generation Rate[1]	Diversion Rate	Total Daily Disposal Demand[2]	Per Capita Disposal Rate Based on CalRecycle's Target = 2.7	Imports from Other Counties	Daily Available Capacity Transformation Facilities[3]	Exports to Out-of-County Landfills	Class III Landfill Daily Disposal Demand	Antelope Valley	R Burbank	R Calabasas	Chiquita	Lancaster	Pebbly Beach	R San Clemente	R Scholl	Sunshine City/County Combined	R Whittier (Savage Canyon)	Total In-County Class III Landfill Available Capacity[4] (tpd-6)	Class III Landfill Daily Disposal Capacity Shortfall (Reserve)
		Adjusted	Adjusted						Maximum Permitted Daily Capacity (tpd-6) Expected Average Daily Tonnage (tpd-6) Remaining Capacity at Year's End (Million Tons)										Total In-County Class III Landfill Remaining Capacity (million tons)	
	A	B	C=A(1-B)	D	E	F	G	H=C+E-F-G											I	J=H-I
	(tpd-6)		(tpd-6)		(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)											(tpd-6)	
2018	95,996	65%	33,599	--	563	1,300	16,413	16,449	1,800	240	3,500	6,000	3,000	49	10	3,400	11,000	350	24,483	-
									1,636	102	985	4,560	367	12	1	1,292	6,765	290		
									12.0	2.3	4.9	59.1	10.2	0.0	0.04	4.3	65.3	4.6	163	
2019	96,457	74%	25,038	--	600	1,400	12,106	12,132	1,800	240	3,500	12,000	3,000	49	10	3,400	11,000	350	24,395	-
									1,207	75	727	6,616	270	9	1	953	4,990	214		
									11.6	2.2	4.7	57.0	10.1	0.04	0.04	4.0	63.7	4.5	158	
2020	97,589	83%	16,507	2.70	600	1,400	7,845	7,862	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	25,498	(17,636)
									782	49	471	6,616	175	6	1	618	3,234	139		
									11.4	2.2	4.5	55.0	10.1	0.04	0.04	3.8	62.7	4.5	154	
2021	96,017	83%	16,606	2.70	600	1,400	7,894	7,912	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	25,506	(17,595)
									787	49	474	6,616	176	6	1	622	3,254	140		
									11.1	2.2	4.4	52.9	10.0	0.04	0.04	3.6	61.7	4.4	150	
2022	96,362	83%	16,706	2.70	600	1,400	7,944	7,962	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	25,515	(17,553)
									792	49	477	6,616	177	6	1	625	3,275	141		
									10.9	2.2	4.2	50.8	10.0	0.04	0.03	3.4	60.7	4.4	147	
2023	97,739	83%	16,806	2.70	600	1,400	7,994	8,012	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	25,523	(17,511)
									797	50	480	6,616	179	6	1	629	3,295	141		
									10.6	2.2	4.1	48.8	9.9	0.04	0.03	3.2	59.6	4.3	143	
2024	99,491	83%	16,907	2.70	600	700	8,394	8,413	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	25,588	(17,175)
									837	52	504	6,616	187	6	1	661	3,460	148		
									10.4	2.2	3.9	46.7	9.9	0.03	0.03	3.0	58.6	4.3	139	
2025	101,194	83%	17,008	2.70	600	0	8,794	8,814	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	22,449	(13,635)
									877	55	528	3,411	196	6	1	692	3,625	156		
									10.1	2.1	3.8	45.7	9.8	0.03	0.03	2.8	57.4	4.2	136	
2026	103,693	83%	17,110	2.70	600	0	8,845	8,865	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	22,457	(13,592)
									882	55	531	3,411	198	6	1	696	3,646	156		
									9.8	2.1	3.6	44.6	9.7	0.03	0.03	2.6	56.3	4.2	133	
2027	104,844	84%	17,213	2.70	600	0	8,897	8,916	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	22,465	(13,549)
									887	55	534	3,411	199	6	1	700	3,667	157		
									9.6	2.1	3.4	43.5	9.7	0.03	0.03	2.4	55.2	4.1	130	
2028	106,052	84%	17,316	2.70	600	0	8,948	8,968	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	22,474	(13,506)
									892	56	537	3,411	200	6	1	705	3,688	158		
									9.3	2.1	3.3	42.5	9.6	CP	0.03	2.1	54.0	4.1	127	

Assumptions:

1 Waste Generation is estimated using CalRecycle's Adjustment Methodology, utilizing population projection, employment and real taxable sales projections from UCLA's Longterm Forecast, July 2018.

2 The Total Daily Disposal Demand for the years 2018 - 2019 (Column C) is determined based on the daily solid waste generation rate and the assumed diversion rates for the scenario. However, for the purposes of this scenario, the total daily disposal demand for the years 2020 - 2033 is adjusted using CalRecycle's statewide disposal target of 2.7 pounds per person per day (PPD). As a result, the diversion rate is assumed to increase from 75% (as shown in other scenarios) to 83% by 2020.

3 Daily Available Capacity from Transformation Facilities assume: (1) Southeast Resource Recovery Facility will continue at their current permitted daily capacity during the planning period and (2) Commerce Refuse to Energy Facility ceased its operation on June 2018.

4 Total In-County Class III Landfill Available Capacity is calculated based on Maximum Permitted Daily Capacity (in blue text) for facilities without a restricted wasteshed or Expected Average Daily Tonnage for facilities with a restricted wasteshed (R). A "Clean Hands Waiver" was granted to Chiquita Canyon Landfill on March 17, 2016 to continue its operation while processing the landfill's new conditional use permit. On July 25, 2017, the Board of Supervisors approved a new Conditional Use Permit for the Landfill's Expansion Project. Chiquita Canyon Landfill's expected average daily tonnage is based on the limits set on the new conditional use permit and therefore used to calculate the Total In-County Class III landfill Available Capacity.

5 This scenario considers the effect of Assembly Bill 1594 that removes diversion credit from green waste used as alternative daily cover (ADC) at landfills.

Legend:

CC/CP: Closure due to exhausted capacity (CC) or permit expiration (CP)

E: Expansion may become effective

R: Restricted wasteshed

W/WE Clean Hands Waiver (W) or Waiver expiration (WE)

TABLE 4-13:
Scenario III - Meeting CalRecycle's Statewide Disposal Target of 2.7 PPD

TABLE 4-13: Scenario III - Meeting CalRecycle's Statewide Disposal Target of 2.7 PPD (Cont.)

Disposal Capacity Need Analysis (Excluding Inert Waste Landfills)

•Existing In-County Class III Landfills and Transformation Facilities •Diversion Rate (83% by 2020) •Exports Based on Existing Export Agreements

Year	Waste Generation Rate[1] A (tpd-6)	Diversion Rate Adjusted B	Total Daily Disposal Demand[2] Adjusted C=A(1-B) (tpd-6)	Per Capita Disposal Rate Based on CalRecycle's Target = 2.7 D	Imports from Other Counties E (tpd-6)	Daily Available Capacity Transformation Facilities[3] F (tpd-6)	Exports to Out-of-County Landfills G (tpd-6)	Class III Landfill Daily Disposal Demand H=C+E-F-G (tpd-6)	In-County Class III Landfills										Total In-County Class III Landfill Available Capacity[4] (tpd-6) Total In-County Class III Landfill Remaining Capacity (million tons) I (tpd-6)	Class III Landfill Daily Disposal Capacity Shortfall (Reserve) J=H-I (tpd-6)
									1 Antelope Valley	2 R Burbank	3 R Calabasas	4 Chiquita	5 Lancaster	6 Pebbly Beach	7 R San Clemente	8 R Scholl	9 Sunshine City/County Combined	10 R Whittier (Savage Canyon)	11	
									Maximum Permitted Daily Capacity (tpd-6) Expected Average Daily Tonnage (tpd-6) Remaining Capacity at Year's End (Million Tons)											
2029	107,257	84%	17,420	2.70	600	0	9,000	9,020	3,600 897 9.0	240 56 2.1	3,500 540 CP	12,000 3,411 41.4	3,000 201 9.6		10 1 0.03	3,400 709 1.9	11,000 3,710 52.8	350 159 4.0	22,476 121	(13,456)
2030	108,540	84%	17,525	2.70	600	0	9,052	9,072	3,600 902 8.7	240 56 2.1		12,000 3,411 40.3	3,000 202 9.5		10 1 0.03	3,400 713 1.7	11,000 3,731 51.7	350 160 4.0	21,941 118	(12,868)
2031	109,840	84%	17,626	2.70	600	0	9,103	9,123	3,600 907 8.4	240 57 2.0		12,000 3,411 39.3	3,000 203 9.4		10 1 0.03	3,400 717 1.5	11,000 3,752 50.5	350 161 3.9	21,946 115	(12,823)
2032	111,173	84%	17,729	2.70	600	0	9,154	9,174	3,600 912 8.1	240 57 2.0		12,000 3,411 38.2	3,000 204 9.4		10 1 CP	3,400 721 1.2	11,000 3,773 49.3	350 162 3.9	21,951 112	(12,777)
2033	112,542	84%	17,832	2.70	600	0	9,206	9,226	3,600 918 7.9	240 57 2.0		12,000 3,411 37.1	3,000 206 9.3			3,400 725 1.0	11,000 3,795 48.1	350 163 3.8	21,956 109	(12,730)

Source: Los Angeles County Public Works.

TABLE 4-13:
Scenario III - Meeting CalRecycle's Statewide Disposal Target of 2.7 PPD (Cont.)

4.10.4 Scenario IV - Meeting Senate Bill 1383 Organic Waste Disposal Reduction Targets

Scenario IV assumes the following during the planning period: (1) use of existing in-County permitted disposal facilities (excluding disposal at inert waste landfills); (2) continued jurisdiction's diversion efforts (increasing countywide diversion rate to 74 percent by 2020 and thereafter); (3) utilization of out-of-County landfills; and (4) no proposed expansions of existing Class III landfills and/or transformation facilities. In addition, the scenario assumes compliance with Senate Bill 1383. The analysis for Scenario IV is presented in **Table 4-14** and **Figures 4-4** and **4-5**.

Based on these assumptions, a disposal capacity shortfall is not expected to occur during the planning period.

4.10.5 Scenario V – Utilization of Additional Alternative Technology Capacity

Scenario V assumes the following during the planning period: (1) use of existing in-County permitted disposal facilities (excluding disposal at inert waste landfills); (2) diversion rate remains constant at 65 percent; (3) utilization of out-of-County landfill disposal capacity; (3) no proposed expansions of existing Class III landfills and/or transformation facilities within the planning period; and (4) utilization of additional alternative technology capacity (e.g., conversion technology, other alternatives to landfilling). The analysis for Scenario VI is presented in **Table 4-15** and **Figures 4-4** and **4-5**.

Based on these assumptions, a disposal capacity shortfall is not expected to occur during the planning period.

4.10.6 Scenario VI – Increase in Exports to Out-of-County Landfills (excluding potential waste-by-rail capacity)

Scenario VI assumes the following during the planning period: (1) use of existing in-County permitted disposal facilities (excluding disposal at inert waste landfills); (2) diversion rate remains constant at 65 percent; (3) increase in exports to out-of-County landfills (excluding additional disposal capacity through the waste-by-rail system); and (4) no proposed expansions of existing Class III landfills and/or transformation facilities within the planning period. The analysis for Scenario VI is presented in **Table 4-16** and **Figures 4-4** and **4-5**.

Based on these assumptions, a disposal capacity shortfall is not expected to occur during the planning period.

Los Angeles County fostering development of alternative technologies as alternatives to landfill disposal.

TABLE 4-14: Scenario IV - Meeting Senate Bill 1383 Organic Waste Disposal Reduction Targets

Disposal Capacity Need Analysis (Excluding Inert Waste Landfills)

•Existing In-County Class III Landfills and Transformation Facilities •Diversion Rate (74% by 2020) •Exports Based on Existing Export Agreements

	Generation	Disposal		Diversion							1	2	3	4	5	6	7	8	9	10	11	
											In-County Class III Landfills											
Year	Total Solid Waste Generation Rate[1]	Total Solid Waste Diversion Rate	Total Solid Waste Diversion Tonnage	Total Solid Waste Daily Disposal Demand	Organic Waste Disposal Tonnage[2]	% of Disposed Organic Waste in Total Solid Waste Disposal Demand	Imports from Other Countries	Daily Available Capacity from Transformation Facilities[3]	Exports to Out-of-County Landfills	Class III Landfill Daily Disposal Demand	Antelope Valley	R Burbank	R Calabasas	Chiquita	Lancaster	Pebbly Beach	R San Clemente	R Scholl	Sunshine City/ County Combined	R Whittier (Savage Canyon)	Total In-County Class III Landfill Available Capacity[4] (tpd-6) Total In-County Class III Landfill Remaining Capacity (million tons)	Class III Landfill Daily Disposal Capacity Shortfall (Reserve)
											Maximum Permitted Daily Capacity (tpd-6) Expected Average Daily Tonnage (tpd-6) Remaining Capacity at Year's End (Million Tons)											
	A (tpd-6)	B	C=A*B (tpd-6)	D=A(1-B) (tpd-6)	E (tpd-6)	F=E/D	G (tpd-6)	H (tpd-6)	I (tpd-6)	J=D+G-H-I (tpd-6)											H (tpd-6)	I=G-H (tpd-6)
2014	70,170	60%	42,102	28,068	11,311	40%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2018	95,996	65%	62,398	33,599	13,552	40%	563	1,300	16,413	16,449	1,800 1,636 12.0	240 102 2.3	3,500 985 4.9	6,000 4,560 59.1	3,000 367 10.2	49 12 0.05	10 2 0.04	3,400 1,292 4.3	11,000 6,765 65.3	350 290 4.6	24,484 163	-
2019	96,457	69%	66,948	29,509	9,360	32%	600	1,400	14,339	14,370	1,800 1,429 11.6	240 89 2.2	3,500 861 4.6	12,000 6,616 57.0	3,000 320 10.1	49 10 0.04	10 2 0.04	3,400 1,129 3.9	11,000 5,910 63.4	350 254 4.5	24,761 158	-
2020	97,589	74%	72,036	25,553	5,656 50%	22%	600	1,400	12,363	12,390	3,600 1,232 11.2	240 77 2.2	3,500 742 4.4	12,000 6,616 55.0	3,000 276 10.0	49 9 0.04	10 2 0.03	3,400 973 3.6	11,000 5,096 61.8	350 219 4.4	26,237 153	(13,847)
2021	96,017	74%	71,459	24,558	4,989	23%	600	1,400	11,866	11,892	3,600 1,183 10.8	240 74 2.2	3,500 712 4.2	12,000 6,616 52.9	3,000 265 10.0	49 9 0.04	10 1 0.03	3,400 934 3.3	11,000 4,891 60.3	350 210 4.4	26,156 148	(14,264)
2022	96,362	75%	72,301	24,061	4,420	18%	600	1,400	11,617	11,643	3,600 1,158 10.4	240 72 2.2	3,500 697 4.0	12,000 6,616 50.8	3,000 259 9.9	49 8 0.04	10 1 0.03	3,400 915 3.1	11,000 4,789 58.8	350 206 4.3	26,116 144	(14,472)
2023	97,739	76%	73,929	23,811	3,882	16%	600	1,400	11,493	11,518	3,600 1,146 10.1	240 71 2.1	3,500 690 3.8	12,000 6,616 48.8	3,000 257 9.8	49 8 0.03	10 1 0.03	3,400 905 2.8	11,000 4,737 57.3	350 203 4.2	26,095 139	(14,577)
2024	99,491	76%	75,858	23,633	3,338	14%	600	700	11,753	11,779	3,600 1,172 9.7	240 73 2.1	3,500 706 3.5	12,000 6,616 46.7	3,000 263 9.7	49 8 0.03	10 1 0.03	3,400 925 2.5	11,000 4,845 55.8	350 208 4.2	26,138 134	(14,358)
2025	101,194	77%	77,715	23,479	2,828 75%	12%	600	0	12,026	12,053	3,600 1,199 9.3	240 75 2.1	3,500 722 3.3	12,000 3,411 45.7	3,000 269 9.6	49 9 0.03	10 1 0.03	3,400 947 2.2	11,000 4,957 54.3	350 213 4.1	22,977 131	(10,925)
2026	103,693	77%	79,693	24,001	2,828	12%	600	0	12,287	12,314	3,600 1,225 9.0	240 76 2.1	3,500 738 3.1	12,000 3,411 44.6	3,000 274 9.6	49 9 0.02	10 1 0.03	3,400 967 1.9	11,000 5,065 52.7	350 217 4.0	23,020 127	(10,706)
2027	104,844	77%	80,577	24,267	2,854	12%	600	0	12,420	12,447	3,600 1,238 8.6	240 77 2.1	3,500 746 2.8	12,000 3,411 43.5	3,000 277 9.5	49 9 0.02	10 2 0.03	3,400 978 1.6	11,000 5,119 51.1	350 220 4.0	23,042 123	(10,594)

Assumptions:

1 Waste Generation is estimated using CalRecycle's Adjustment Methodology, utilizing population projection, employment and real taxable sales projections from UCLA's Longterm Forecast, July 2018.

2 The amount of Organic Waste Disposal Tonnage is calculated using the organic waste disposal reduction targets of Senate Bill 1383. (Source: Countywide Organic Waste Management Plan, 2018 Annual Report).

3 Daily Available Capacity from Transformation Facilities assume: (1) Southeast Resource Recovery Facility will continue at their current permitted daily capacity during the planning period and (2) Commerce Refuse to Energy Facility ceased its operation on June 2018.

4 Total In-County Class III Landfill Available Capacity is calculated based on Maximum Permitted Daily Capacity (in blue text) for facilities without a restricted wasteshed or Expected Average Daily Tonnage for facilities with a restricted wasteshed. A "Clean Hands Waiver" was granted to Chiquita Canyon Landfill on March 17, 2016 to continue its operation while processing the landfill's new conditional use permit. On July 25, 2017, the Board of Supervisors approved a new Conditional Use Permit for the Landfill's Expansion Project. Chiquita Canyon Landfill's expected average daily tonnage is based on the limits set on the new conditional use permit and therefore used to calculate the Total In-County Class III landfill Available Capacity.

5 This scenario considers the effect of Assembly Bill 1594 that removes diversion credit from green waste used as alternative daily cover (ADC) at landfills.

Legend:

CC/CP: Closure due to exhausted capacity (CC) or permit expiration (CP)

E: Expansion may become effective

R: Restricted wasteshed

W/WE Clean Hands Waiver (W) or Waiver expiration (WE)

Public Works
LOS ANGELES COUNTY

TABLE 4-14:
Scenario IV - Meeting Senate Bill 1383 Organic Waste Disposal Reduction Targets

TABLE 4-14: Scenario IV - Meeting Senate Bill 1383 Organic Waste Disposal Reduction Targets (Cont.)

Disposal Capacity Need Analysis (Excluding Inert Waste Landfills)

- Existing In-County Class III Landfills and Transformation Facilities
- Diversion Rate (74% by 2020)
- Exports Based on Existing Export Agreements

	Generation	Disposal	Diversion									1	2	3	4	5	6	7	8	9	10	11	
												In-County Class III Landfills											
Year	Total Solid Waste Generation Rate[1]	Total Solid Waste Diversion Rate	Total Solid Waste Diversion Tonnage	Total Solid Waste Daily Disposal Demand	Organic Waste Disposal Tonnage[2]	% of Disposed Organic Waste in Total Solid Waste Disposal Demand	Imports from Other Countries	Daily Available Capacity from Transformation Facilities[3]	Exports to Out-of-County Landfills	Class III Landfill Daily Disposal Demand		Antelope Valley	R Burbank	R Calabasas	Chiquita	Lancaster	Pebbly Beach	R San Clemente	R Scholl	Sunshine City/ County Combined	R Whittier (Savage Canyon)	Total In-County Class III Landfill Available Capacity[4] (tpd-6)	Class III Landfill Daily Disposal Capacity Shortfall (Reserve)
												Maximum Permitted Daily Capacity (tpd-6) Expected Average Daily Tonnage (tpd-6) Remaining Capacity at Year's End (Million Tons)											Total In-County Class III Landfill Remaining Capacity (million tons)	
	A (tpd-6)	B	C=A*B (tpd-6)	D=A(1-B) (tpd-6)	E (tpd-6)	F=E/D	G (tpd-6)	H (tpd-6)	I (tpd-6)	J=D+G-H-I (tpd-6)												H (tpd-6)	I=G-H (tpd-6)
2028	106,052	77%	81,505	24,547	2,881	12%	600	0	12,560	12,588		3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	23,065	(10,477)
												1,252	78	754	3,411	281	9	2	989	5,177	222		
												8.2	2.0	2.6	42.5	9.4	CP	0.03	1.3	49.5	3.9	119	
2029	107,257	77%	82,431	24,826	2,908	12%	600	0	12,699	12,727		3,600	240	3,500	12,000	3,000		10	3,400	11,000	350	23,078	(10,351)
												1,266	79	762	3,411	284		2	1,000	5,234	225		
												7.8	2.0	CP	41.4	9.3		0.03	CC	47.9	3.8	112	
2030	108,540	77%	83,417	25,123	2,937	12%	600	0	12,847	12,876		3,600	240		12,000	3,000		10		11,000	350	21,320	(8,444)
												1,281	80		3,411	287		2		5,296	227		
												7.4	2.0		40.3	9.2		0.03		46.2	3.8	109	
2031	109,840	77%	84,416	25,424	2,966	12%	600	0	12,998	13,026		3,600	240		12,000	3,000		10		11,000	350	21,323	(8,297)
												1,296	81		3,411	290		2		5,358	230		
												7.0	2.0		39.3	9.1		0.03		44.5	3.7	106	
2032	111,173	77%	85,440	25,733	2,996	12%	600	0	13,152	13,181		3,600	240		12,000	3,000		10		11,000	350	21,327	(8,146)
												1,311	82		3,411	294		2		5,421	233		
												6.6	1.9		38.2	9.0		CP		42.8	3.6	102	
2033	112,542	77%	86,492	26,050	3,027	12%	600	0	13,310	13,339		3,600	240		12,000	3,000				11,000	350	21,329	(7,990)
												1,327	83		3,411	297				5,486	235		
												6.2	1.9		37.1	8.9				41.1	3.5	99	

Source: Los Angeles County Public Works.

TABLE 4-14:
Scenario IV - Meeting Senate Bill 1383 Organic Waste Disposal Reduction Targets (Cont.)

TABLE 4-15: Scenario V - Utilization of Additional Alternative Technology Capacity

Disposal Capacity Need Analysis (Excluding Inert Waste Landfills)

•Existing In-County Class III Landfills and Transformation Facilities •Exports Based on Existing Export Agreements •Diversion Rate at 65% •Utilization of Additional Alternative Technology Capacity

								1	2	3	4	5	6	7	8	9	10	11	
								In-County Class III Landfills											
Year	Waste Generation Rate[1]	Diversion Rate	Total Daily Disposal Demand	Imports from Other Counties	Potential Available Capacity from Alternative Technology Facilities[2]	Exports to Out-of-County Landfills	Class III Landfill Daily Disposal Demand	Antelope Valley	R Burbank	R Calabasas	Chiquita	Lancaster	Pebbly Beach	R San Clemente	R Scholl	Sunshine City/County Combined	R Whittier (Savage Canyon)	Total In-County Class III Landfill Available Capacity[3] (tpd-6) Total In-County Class III Landfill Remaining Capacity (million tons)	Class III Landfill Daily Disposal Capacity Shortfall (Reserve)
	A	B	C=A(1-B)	D	E	F	G=C+D-E-F	Maximum Permitted Daily Capacity (tpd-6) Expected Average Daily Tonnage (tpd-6) Remaining Capacity at Year's End (Million Tons)										H	I=G-H
	(tpd-6)		(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)											(tpd-6)	(tpd-6)
2018	95,996	65%	33,599	563	1,300	16,413	16,449	1,800 1,636 12.0	240 102 2.3	3,500 985 4.9	6,000 4,560 59.1	3,000 367 10.2	49 12 0.0	10 1 0.04	3,400 1,292 4.3	11,000 6,765 65.3	350 290 4.6	24,483 163	-
2019	96,457	65%	33,760	600	1,400	16,462	16,498	1,800 1,641 11.5	240 102 2.2	3,500 988 4.6	12,000 6,616 48.1	3,000 368 10.1	49 12 0.04	10 1 0.04	3,400 1,296 3.9	11,000 6,786 63.2	350 291 4.5	25,107 148	-
2020	97,589	65%	34,156	600	1,600	16,560	16,596	3,600 1,651 11.0	240 103 2.2	3,500 994 4.3	12,000 6,616 46.0	3,000 370 10.0	49 12 0.04	10 1 0.03	3,400 1,304 3.5	11,000 6,826 61.0	350 293 4.4	26,923 142	(10,326)
2021	96,017	65%	33,606	600	1,600	16,285	16,321	3,600 1,623 10.5	240 101 2.2	3,500 978 4.0	12,000 6,616 44.0	3,000 364 9.9	49 12 0.04	10 1 0.03	3,400 1,282 3.1	11,000 6,713 58.9	350 288 4.3	26,878 137	(10,557)
2022	96,362	65%	33,727	600	1,600	16,345	16,381	3,600 1,629 10.0	240 102 2.1	3,500 981 3.7	12,000 6,616 41.9	3,000 365 9.8	49 12 0.03	10 1 0.03	3,400 1,287 2.7	11,000 6,737 56.8	350 289 4.2	26,888 131	(10,506)
2023	97,739	65%	34,209	600	1,600	16,586	16,623	3,600 1,653 9.4	240 103 2.1	3,500 996 3.4	12,000 6,616 39.9	3,000 370 9.7	49 12 0.03	10 1 0.03	3,400 1,306 2.3	11,000 6,837 54.7	350 293 4.1	26,927 126	(10,304)
2024	99,491	65%	34,822	600	1,600	16,892	16,930	3,600 1,684 8.9	240 105 2.1	3,500 1,014 3.1	12,000 6,616 37.8	3,000 377 9.5	49 12 0.02	10 1 0.03	3,400 1,330 1.9	11,000 6,963 52.5	350 299 4.0	26,977 120	(10,048)
2025	101,194	65%	35,418	600	1,600	17,190	17,228	3,600 1,713 8.4	240 107 2.0	3,500 1,032 2.7	12,000 3,411 36.7	3,000 384 9.4	49 12 0.02	10 1 0.03	3,400 1,353 1.4	11,000 7,086 50.3	350 304 3.9	23,821 115	(6,593)
2026	103,693	65%	36,293	600	1,600	17,627	17,666	3,600 1,757 7.8	240 109 2.0	3,500 1,058 2.4	12,000 3,411 35.7	3,000 394 9.3	49 13 0.02	10 1 0.03	3,400 1,388 1.0	11,000 7,266 48.0	350 312 3.8	23,892 110	(6,226)
2027	104,844	65%	36,695	600	1,600	17,828	17,867	3,600 1,777 7.3	240 111 2.0	3,500 1,070 2.1	12,000 3,411 34.6	3,000 398 9.2	49 13 0.01	10 1 0.03	3,400 1,404 0.6	11,000 7,349 45.8	350 315 3.7	23,925 105	(6,058)
2028	106,052	65%	37,118	600	1,600	18,039	18,079	3,600 1,798 6.7	240 112 1.9	3,500 1,083 1.7	12,000 3,411 33.5	3,000 403 9.0	49 13 CP	10 1 0.03	3,400 1,420 0.1	11,000 7,436 43.4	350 319 3.6	23,960 100	(5,881)

Assumptions:

1 Waste Generation is estimated using CalRecycle's Adjustment Methodology, utilizing population projection, employment and real taxable sales projections from UCLA's Longterm Forecast, July 2018.

2 Daily Available Capacity from Transformation Facilities assume: (1) Southeast Resource Recovery Facility will continue at their current permitted daily capacity during the planning period and (2) Commerce Refuse to Energy Facility ceased its operation on June 2018. This scenario also assumes additional capacity will be available from potential EMSW facilities or other alternative technologies. Potential capacity from anaerobic digestion facility is considered part of diversion since anaerobic digestion process is within the statutory definition of composting which is considered as recycling.

3 Total In-County Class III Landfill Available Capacity is calculated based on Maximum Permitted Daily Capacity (in blue text) for facilities without a restricted wasteshed or Expected Average Daily Tonnage for facilities with a restricted wasteshed. A "Clean Hands Waiver" was granted to Chiquita Canyon Landfill on March 17, 2016 to continue its operation while processing the landfill's new conditional use permit. On July 25, 2017, the Board of Supervisors approved a new Conditional Use Permit for the Landfill's Expansion Project. Chiquita Canyon Landfill's expected average daily tonnage is based on the limits set on the new conditional use permit and therefore used to calculate the Total In-County Class III landfill Available Capacity.

4 This scenario considers the effect of Assembly Bill 1594 that removes diversion credit from green waste used as alternative daily cover (ADC) at landfills.

Legend:

CC/CP: Closure due to exhausted capacity (CC) or permit expiration (CP)

E: Expansion may become effective

R: Restricted wasteshed

W/WE Clean Hands Waiver (W) or Waiver expiration (WE)

TABLE 4-15:
Scenario V - Utilization of Additional Alternative Technology Capacity
(Cont.)

TABLE 4-15: Scenario V - Utilization of Additional Alternative Technology Capacity (Cont.)

Disposal Capacity Need Analysis (Excluding Inert Waste Landfills)

•Existing In-County Class III Landfills and Transformation Facilities •Exports Based on Existing Export Agreements •Diversion Rate at 65% •Utilization of Additional Alternative Technology Capacity

								1	2	3	4	5	6	7	8	9	10	11	
								In-County Class III Landfills											
Year	Waste Generation Rate[1]	Diversion Rate	Total Daily Disposal Demand	Imports from Other Counties	Potential Available Capacity from Alternative Technology Facilities[2]	Exports to Out-of-County Landfills	Class III Landfill Daily Disposal Demand	Antelope Valley	R Burbank	R Calabasas	Chiquita	Lancaster	Pebbly Beach	R San Clemente	R Scholl	Sunshine City/County Combined	R Whittier (Savage Canyon)	Total In-County Class III Landfill Available Capacity[3] (tpd-6)	Class III Landfill Daily Disposal Capacity Shortfall (Reserve)
								Maximum Permitted Daily Capacity (tpd-6) Expected Average Daily Tonnage (tpd-6) Remaining Capacity at Year's End (Million Tons)										Total In-County Class III Landfill Remaining Capacity (million tons)	
	A	B	C=A(1-B)	D	E	F	G=C+D-E-F											H	I=G-H
	(tpd-6)		(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)											(tpd-6)	(tpd-6)
2029	107,257	65%	37,540	600	1,600	18,250	18,290	3,600	240	3,500	12,000	3,000	10		3,400	11,000	350	23,981	(5,691)
								1,819	113	1,096	3,411	408	1		1,437	7,523	323		
								6.2	1.9	CP	32.5	8.9	0.03		CC	41.1	3.5	94	
2030	108,540	65%	37,989	600	1,600	18,474	18,515	3,600	240		12,000	3,000	10			11,000	350	21,454	(2,939)
								1,841	115		3,411	413	1			7,615	327		
								5.6	1.9		31.4	8.8	0.03			38.7	3.4	90	
2031	109,840	65%	38,444	600	1,600	18,701	18,743	3,600	240		12,000	3,000	10			11,000	350	21,459	(2,717)
								1,864	116		3,411	418	1			7,709	331		
								5.0	1.8		30.3	8.7	0.03			36.3	3.3	86	
2032	111,173	65%	38,911	600	1,600	18,934	18,976	3,600	240		12,000	3,000	10			11,000	350	21,465	(2,489)
								1,887	118		3,411	423	1			7,805	335		
								4.4	1.8		29.3	8.5	CP			33.9	3.2	81	
2033	112,542	65%	39,390	600	1,600	19,174	19,216	3,600	240		12,000	3,000				11,000	350	21,469	(2,253)
								1,911	119		3,411	428				7,903	339		
								3.8	1.8		28.2	8.4				31.4	3.1	77	

Source: Los Angeles County Public Works.

TABLE 4-15:
Scenario V - Utilization of Additional Alternative Technology Capacity (Cont.)
(Cont.)

TABLE 4-16: Scenario VI - Increase in Exports to Out-of-County Landfills (Excluding Potential Waste-by-Rail Capacity)

Disposal Capacity Need Analysis (Excluding Inert Waste Landfills)

•Existing In-County Class III Landfills and Transformation Facilities •Exports Based on Existing Export Agreements •Diversion Rate at 65% •Increase in Exports to Out-of-County Landfills (Excluding Potential Waste-by-Rail Capacity)

								1	2	3	4	5	6	7	8	9	10	11		
								In-County Class III Landfills												
Year	Waste Generation Rate[1]	Diversion Rate	Total Daily Disposal Demand	Imports from Other Counties	Daily Available Capacity Transformation Facilities[2]	Exports to Out-of-County Landfills	Class III Landfill Daily Disposal Demand	Antelope Valley	R Burbank	R Calabasas	Chiquita	Lancaster	Pebbly Beach	R San Clemente	R Scholl	Sunshine City/County Combined	R Whittier (Savage Canyon)	Total In-County Class III Landfill Available Capacity[3] (tpd-6) Total In-County Class III Landfill Remaining Capacity (million tons)	Waste-by-Rail Capacity[4]	Class III Landfill Daily Disposal Capacity Shortfall (Reserve)
								Maximum Permitted Daily Capacity (tpd-6) Expected Average Daily Tonnage (tpd-6) Remaining Capacity at Year's End (Million Tons)												
	A	B	C=A(1-B)	D	E	F	G=C+D-E-F											H	I	J=G-H-I
	(tpd-6)		(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)											(tpd-6)	(tpd-6)	(tpd-6)
2018	95,996	65%	33,599	563	1,300	16,413	16,449	1,800	240	3,500	6,000	3,000	49	10	3,400	11,000	350	24,483	-	-
								1,636	102	985	4,560	367	12	1	1,292	6,765	290			
								12.0	2.3	4.9	59.1	10.2	0.0	0.04	4	65	4.6	163		
2019	96,457	65%	33,760	600	1,400	18,000	14,960	1,800	240	3,500	12,000	3,000	49	10	3,400	11,000	350	24,856	-	-
								1,488	93	896	6,616	333	11	1	1,175	6,153	264			
								11.5	2.2	4.6	48.1	10.1	0.04	0.04	4	63	4.5	149		
2020	97,589	65%	34,156	600	1,400	18,000	15,356	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	26,721	-	(11,364)
								1,527	95	920	6,616	342	11	1	1,206	6,316	271			
								11.1	2.2	4.3	46.0	10.0	0.04	0.03	4	61	4.4	143		
2021	96,017	65%	33,606	600	1,400	18,000	14,806	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	26,631	-	(11,825)
								1,473	92	887	6,616	330	11	1	1,163	6,090	261			
								10.6	2.2	4.1	44.0	9.9	0.04	0.03	3	59	4.3	138		
2022	96,362	65%	33,727	600	1,400	18,000	14,927	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	26,651	-	(11,724)
								1,485	92	894	6,616	333	11	1	1,173	6,139	263			
								10.1	2.1	3.8	41.9	9.8	0.03	0.03	3	58	4.2	133		
2023	97,739	65%	34,209	600	1,400	18,000	15,409	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	26,729	-	(11,320)
								1,533	95	923	6,616	343	11	1	1,210	6,337	272			
								9.7	2.1	3.5	39.9	9.7	0.03	0.03	2	56	4.2	127		
2024	99,491	65%	34,822	600	700	18,000	16,722	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	26,943	-	(10,222)
								1,663	104	1,002	6,616	373	12	1	1,314	6,877	295			
								9.1	2.1	3.2	37.8	9.6	0.03	0.03	2	53	4.1	121		
2025	101,194	65%	35,418	600	0	19,000	17,018	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	23,787	-	(6,769)
								1,693	105	1,019	3,411	379	12	1	1,337	6,999	300			
								8.6	2.1	2.9	36.7	9.5	0.02	0.03	2	51	4.0	117		
2026	103,693	65%	36,293	600	0	19,000	17,893	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	23,929	-	(6,037)
								1,780	111	1,072	3,411	399	13	1	1,406	7,359	316			
								8.1	2.0	2.5	35.7	9.3	0.02	0.03	1	49	3.9	112		
2027	104,844	65%	36,695	600	0	19,000	18,295	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	23,995	-	(5,700)
								1,820	113	1,096	3,411	408	13	1	1,437	7,525	323			
								7.5	2.0	2.2	34.6	9.2	0.01	0.03	1	47	3.8	107		
2028	106,052	65%	37,118	600	0	19,000	18,718	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	24,064	-	(5,346)
								1,862	116	1,121	3,411	417	13	1	1,470	7,699	330			
								6.9	1.9	1.8	33.5	9.1	CP	0.03	0	44	3.7	102		

Assumptions:

1 Waste Generation is estimated using CalRecycle's Adjustment Methodology, utilizing population projection, employment and real taxable sales projections from UCLA's Longterm Forecast, July 2018.

2 Daily Available Capacity from Transformation Facilities assume: (1) Southeast Resource Recovery Facility will continue at their current permitted daily capacity during the planning period and (2) Commerce Refuse to Energy Facility ceased its operation on June 2018.

3 Total In-County Class III Landfill Available Capacity is calculated based on Maximum Permitted Daily Capacity (in blue text) for facilities without a restricted wasteshed or Expected Average Daily Tonnage for facilities with a restricted wasteshed. A "Clean Hands Waiver" was granted to Chiquita Canyon Landfill on March 17, 2016 to continue its operation while processing the landfill's new conditional use permit. On July 25, 2017, the Board of Supervisors approved a new Conditional Use Permit for the Landfill's Expansion Project. Chiquita Canyon Landfill's expected average daily tonnage is based on the limits set on the new conditional use permit and therefore used to calculate the Total In-County Class III landfill Available Capacity.

4 The operation of the Mesquite Regional Landfill (MRL) and waste by rail system (WBR) is entirely dependent on the availability of in-county and near-county disposal capacity, diversion from landfills and the cost of disposal. When the MRL/WBR disposal capacity is needed and when the tipping fees make MRL/WBR economically viable, then the system may begin operation. However, for the purpose of the analysis, the additional capacity of the waste-by-rail system is excluded from this scenario.

5 This scenario considers the effect of Assembly Bill 1594 that removes diversion credit from green waste used as alternative daily cover (ADC) at landfills.

Legend:

CC/CP: Closure due to exhausted capacity (CC) or permit expiration (CP)

E: Expansion may become effective

R: Restricted wasteshed

W/WE Clean Hands Waiver (W) or Waiver expiration (WE)

Public Works
LOS ANGELES COUNTY

TABLE 4-16:
Scenario VI - Increase in Exports to Out-of-County Landfills
(Excluding Potential Waste-by-Rail Capacity)

TABLE 4-16: Scenario VI - Increase in Exports to Out-of-County Landfills (Excluding Potential Waste-by-Rail Capacity) (Cont.)

Disposal Capacity Need Analysis (Excluding Inert Waste Landfills)

•Existing In-County Class III Landfills and Transformation Facilities •Exports Based on Existing Export Agreements •Diversion Rate at 65% •Increase in Exports to Out-of-County Landfills (Excluding Potential Waste-by-Rail Capacity)

								1	2	3	4	5	6	7	8	9	10	11			
								In-County Class III Landfills													
Year	Waste Generation Rate[1]	Diversion Rate	Total Daily Disposal Demand	Imports from Other Counties	Daily Available Capacity Transformation Facilities[2]	Exports to Out-of-County Landfills	Class III Landfill Daily Disposal Demand	Antelope Valley	R Burbank	R Calabasas	Chiquita	Lancaster	Pebbly Beach	R San Clemente	R Scholl	Sunshine City/County Combined	R Whittier (Savage Canyon)	Total In-County Class III Landfill Available Capacity[3] (tpd-6)	Waste-by-Rail Capacity[4]	Class III Landfill Daily Disposal Capacity Shortfall (Reserve)
								Maximum Permitted Daily Capacity (tpd-6) Expected Average Daily Tonnage (tpd-6) Remaining Capacity at Year's End (Million Tons)										Total In-County Class III Landfill Remaining Capacity (million tons)		
	A	B	C=A(1-B)	D	E	F	G=C+D-E-F											H	I	J=G-H-I
	(tpd-6)		(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)											(tpd-6)	(tpd-6)	(tpd-6)
2029	107,257	65%	37,540	600	0	19,000	19,140	3,600	240	3,500	12,000	3,000		10	3,400	11,000	350	24,119	-	(4,979)
								1,904	119	1,147	3,411	427		1	1,504	7,872	338			
								6.3	1.9	CP	32.5	9.0		0.03	CP	42	3.6	95		
2030	108,540	65%	37,989	600	0	19,000	19,589	3,600	240		12,000	3,000		10		11,000	350	21,480	-	(1,891)
								1,948	121		3,411	437		1		8,057	346			
								5.7	1.9		31.4	8.8		0.03		39	3.5	91		
2031	109,840	65%	38,444	600	0	19,000	20,044	3,600	240		12,000	3,000		10		11,000	350	21,490	-	(1,446)
								1,994	124		3,411	447		1		8,244	354			
								5.1	1.8		30.3	8.7		0.03		37	3.4	86		
2032	111,173	65%	38,911	600	0	19,000	20,511	3,600	240		12,000	3,000		10		11,000	350	21,502	-	(991)
								2,040	127		3,411	457		1		8,436	362			
								4.4	1.8		29.3	8.5		CP		34	3.2	81		
2033	112,542	65%	39,390	600	0	19,000	20,990	3,600	240		12,000	3,000				11,000	350	21,512	-	(522)
								2,088	130		3,411	468				8,633	370			
								3.8	1.8		28.2	8.4				31	3.1	77		

Source: Los Angeles County Public Works.

TABLE 4-16:
Scenario VI - Increase in Exports to Out-of-County Landfills
(Excluding Potential Waste-by-Rail Capacity) (Cont.)

4.10.7 Scenario VII–All Solid Waste Management Options Considered Become Available

Scenario VII assumes the following during the planning period: (1) use of existing in-County permitted disposal facilities (excluding disposal at inert waste landfills); (2) continued jurisdiction's diversion efforts (increasing countywide diversion rate to 75 percent by 2020 and thereafter); (3) increase in exports to out-of-County landfills (including additional disposal capacity through the waste-by-rail system); and (4) utilization of additional alternative technology capacity; and (5) development of all proposed in-County Class III landfill expansions. The analysis for Scenario VII A is presented in **Table 4-17** and **Figures 4-4** and **4-5**.

Based on these assumptions, a disposal capacity shortfall is not expected to occur during the planning period.

The anticipated disposal needs of the County cannot be met by pursuing a single alternative.

TABLE 4-17: Scenario VII - All Solid Waste Management Options Considered Become Available

Disposal Capacity Need Analysis (Excluding Inert Waste Landfills)

•Existing In-County Class III Landfills and Transformation Facilities •Exports Based on Existing Export Agreements •Diversion Rate (75% by 2020) •Increase in Exports to Out-of-County Landfills (Including Potential Waste-by-Rail Capacity)
•Proposed Expansions of In-County Class III Landfills •Utilization of Additional Alternative Technology Capacity

								1	2	3	4	5	6	7	8	9	10	11		
								In-County Class III Landfills												
Year	Waste Generation Rate[1]	Diversion Rate	Total Daily Disposal Demand	Imports from Other Counties	Potential Available Capacity from Alternative Technology Facilities[2]	Exports to Out-of-County Landfills	Class III Landfill Daily Disposal Demand	Antelope Valley	R Burbank	R Calabasas	Chiquita	Lancaster	Pebbly Beach	R San Clemente	R Scholl	Sunshine City/County Combined	R Whittier (Savage Canyon)	Total In-County Class III Landfill Available Capacity[3] (tpd-6)	Potential Waste-by-Rail Capacity[4]	Class III Landfill Daily Disposal Capacity Shortfall (Reserve)
								Maximum Permitted Daily Capacity (tpd-6) Expected Average Daily Tonnage (tpd-6) Remaining Capacity at Year's End (Million Tons)										Total In-County Class III Landfill Remaining Capacity (million tons)		
	A	B	C=A(1-B)	D	E	F	G=C+D-E-F											H	I	J=G-H-I
	(tpd-6)		(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)											(tpd-6)	(tpd-6)	(tpd-6)
2018	95,996	65%	33,599	563	1,300	16,413	16,449	1,800	240	3,500	6,000	3,000	49	10	3,400	11,000	350	24,483	-	-
								1,636	102	985	4,560	367	12	1.14	1,292	7,250	290			
								12.0	2.3	4.9	59.1	10.2	0.05	0.04	4.3	65.3	4.6	163		
2019	96,457	65%	33,760	600	1,400	16,000	16,960	1,800	240	3,500	12,000	3,000	49	10	3,400	11,000	350	25,182	-	-
								1,687	105	1,016	6,616	378	12	1.17	1,332	7,475	299			
								11.5	2.2	4.6	48.1	10.1	0.04	0.04	3.9	62.9	4.5	148		
2020	97,589	75%	24,397	600	1,600	16,000	7,397	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	25,422	-	(18,025)
								736	46	443	6,616	500	5	0.51	581	3,260	131			
								11.2	2.2	4.5	46.0	10.0	0.04	0.04	3.70	61.9	4.4	144		
2021	96,017	75%	24,004	600	1,600	16,000	7,004	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	25,358	4,000	(22,354)
								697	43	420	6,616	600	5	0.49	550	3,087	124			
								11.0	2.2	4.3	44.0	9.8	0.04	0.03	3.5	61.0	4.4	140		
2022	96,362	75%	24,090	600	1,600	16,000	7,090	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	25,372	4,000	(22,282)
								705	44	425	6,616	700	5	0.49	557	3,125	125			
								10.8	2.2	4.2	41.9	9.6	0.04	0.03	3.4	60.0	4.4	136		
2023	97,739	75%	24,435	600	1,600	16,000	7,435	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	25,429	4,000	(21,994)
								739	46	445	6,616	800	5	0.51	584	3,277	131			
								10.6	2.2	4.1	39.9	9.3	0.04	0.03	3.2	59.0	4.3	132		
2024	99,491	75%	24,873	600	1,600	16,000	7,873	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	25,500	4,000	(21,627)
								783	49	472	6,616	900	6	0.55	618	3,470	139			
								10.3	2.2	3.9	37.8	9.0	0.03	0.03	3.0	57.9	4.3	128		
2025	101,194	75%	25,299	600	1,600	16,000	8,299	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	22,364	4,000	(18,066)
								825	51	497	3,411	1,000	6	0.57	652	3,658	146			
								10.1	2.1	3.7	36.7	8.7	0.03	0.03	2.8	56.7	4.2	125		
2026	103,693	75%	25,923	600	1,600	16,000	8,923	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	22,466	4,000	(17,543)
								887	55	535	3,411	1,100	6	0.62	701	3,933	158			
								9.8	2.1	3.6	35.7	8.4	0.03	0.03	2.6	55.5	4.2	122		
2027	104,844	75%	26,211	600	1,600	16,000	9,211	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	22,513	4,000	(17,302)
								916	57	552	3,411	1,200	7	0.64	724	4,060	163			
								9.5	2.1	3.4	34.6	8.0	0.03	0.03	2.3	54.2	4.1	118		

Assumptions:

1 Waste Generation is estimated using CalRecycle's Adjustment Methodology, utilizing population projection, employment and real taxable sales projections from UCLA's Longterm Forecast, July 2018.

2 Daily Available Capacity from Transformation Facilities assume: (1) Southeast Resource Recovery Facility will continue at their current permitted daily capacity during the planning period and (2) Commerce Refuse to Energy Facility ceased its operation on June 2018.

3 Total In-County Class III Landfill Available Capacity is calculated based on Maximum Permitted Daily Capacity (in blue text) for facilities without a restricted wasteshed or Expected Average Daily Tonnage for facilities with a restricted wasteshed. A "Clean Hands Waiver" was granted to Chiquita Canyon Landfill on March 17, 2016 to continue its operation while processing the landfill's new conditional use permit. On July 25, 2017, the Board of Supervisors approved a new Conditional Use Permit for the Landfill's Expansion Project. Chiquita Canyon Landfill's expected average daily tonnage is based on the limits set on the new conditional use permit and therefore used to calculate the Total In-County Class III landfill Available Capacity.

4 The operation of the Mesquite Regional Landfill (MRL) and waste by rail system (WBR) is entirely dependent on the availability of in-county and near-county disposal capacity, diversion from landfills and the cost of disposal. When the MRL/WBR disposal capacity is needed and when the tipping fees make MRL/WBR economically viable, then the system may begin operation. However, for the purpose of the analysis, the scenario assumes: (1) an increase in exports to out-of-County landfills and (2) the waste-by-rail system is assumed to begin its operation in 2018.

5 This scenario considers the effect of Assembly Bill 1594 that removes diversion credit from green waste used as alternative daily cover (ADC) at landfills.

Legend:

CC/CP: Closure due to exhausted capacity (CC) or permit expiration (CP)
E: Expansion may become effective
R: Restricted wasteshed
W/WE Clean Hands Waiver (W) or Waiver expiration (WE)

TABLE 4-17:
Scenario VII - All Solid Waste Management Options Considered Become Available

TABLE 4-17: Scenario VII - All Solid Waste Management Options Considered Become Available (Cont.)

Disposal Capacity Need Analysis (Excluding Inert Waste Landfills)

- Existing In-County Class III Landfills and Transformation Facilities
- Exports Based on Existing Export Agreements
- Diversion Rate (75% by 2020)
- Increase in Exports to Out-of-County Landfills (Including Potential Waste-by-Rail Capacity)
- Proposed Expansions of In-County Class III Landfills
- Utilization of Additional Alternative Technology Capacity

								1	2	3	4	5	6	7	8	9	10	11			
								In-County Class III Landfills													
Year	Waste Generation Rate[1]	Diversion Rate	Total Daily Disposal Demand	Imports from Other Counties	Potential Available Capacity from Alternative Technology Facilities[2]	Exports to Out-of-County Landfills	Class III Landfill Daily Disposal Demand	Antelope Valley	R Burbank	R Calabasas	Chiquita	Lancaster	Pebbly Beach	R San Clemente	R Scholl	Sunshine City/County Combined	R Whittier (Savage Canyon)	Total In-County Class III Landfill Available Capacity[3] (tpd-6)	Potential Waste-by-Rail Capacity[4]	Class III Landfill Daily Disposal Capacity Shortfall (Reserve)
								Maximum Permitted Daily Capacity (tpd-6) Expected Average Daily Tonnage (tpd-6) Remaining Capacity at Year's End (Million Tons)										Total In-County Class III Landfill Remaining Capacity (million tons)		
	A	B	C=A(1-B)	D	E	F	G=C+D-E-F											H	I	J=G-H-I
	(tpd-6)		(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)											(tpd-6)	(tpd-6)	(tpd-6)
2028	106,052	75%	26,513	600	1,600	16,000	9,513	3,600	240	3,500	12,000	3,000	49	10	3,400	11,000	350	22,563	4,000	(17,049)
								946	59	570	3,411	1,300	7	0.66	747	4,193	168			
								9.2	2.1	3.2	33.5	7.6	CP	0.03	2.1	52.9	4.1	115		
2029	107,257	75%	26,814	600	1,600	16,000	9,814	3,600	240	3,500	12,000	3,000		10	3,400	11,000	350	22,605	4,000	(16,790)
								976	61	588	3,411	1,400		0.68	771	4,326	173			
								8.9	2.1	CP	32.5	7.1		0.03	1.9	51.6	4.0	108		
2030	108,540	75%	27,135	600	1,600	16,000	10,135	3,600	240		12,000	3,000		10	3,400	11,000	350	22,050	4,000	(15,915)
								1,008	63		3,411	1,500		0.70	796	4,467	179			
								8.6	2.1		31.4	6.7		0.03	1.6	50.2	4.0	105		
2031	109,840	75%	27,460	600	1,600	16,000	10,460	3,600	240		12,000	3,000		10	3,400	11,000	350	22,083	4,000	(15,623)
								1,040	65		3,411	1,600		0.72	822	4,610	185			
								8.3	2.0		30.3	6.2		0.03	1.4	48.8	3.9	101		
2032	111,173	75%	27,793	600	1,600	16,000	10,793	3,600	240		12,000	3,000		10	3,400	11,000	350	22,117	4,000	(15,324)
								1,073	67		3,411	1,700		0.75	848	4,757	191			
								7.9	2.0		29.3	5.7		CP	1.1	47.3	3.9	97		
2033	112,542	75%	28,135	600	1,600	16,000	11,135	3,600	240		12,000	3,000			3,400	11,000	350	22,151	4,000	(15,016)
								1,107	69		3,411	1,800			875	4,908	197			
								7.6	2.0		28.2	5.1			0.8	45.7	3.8	93		

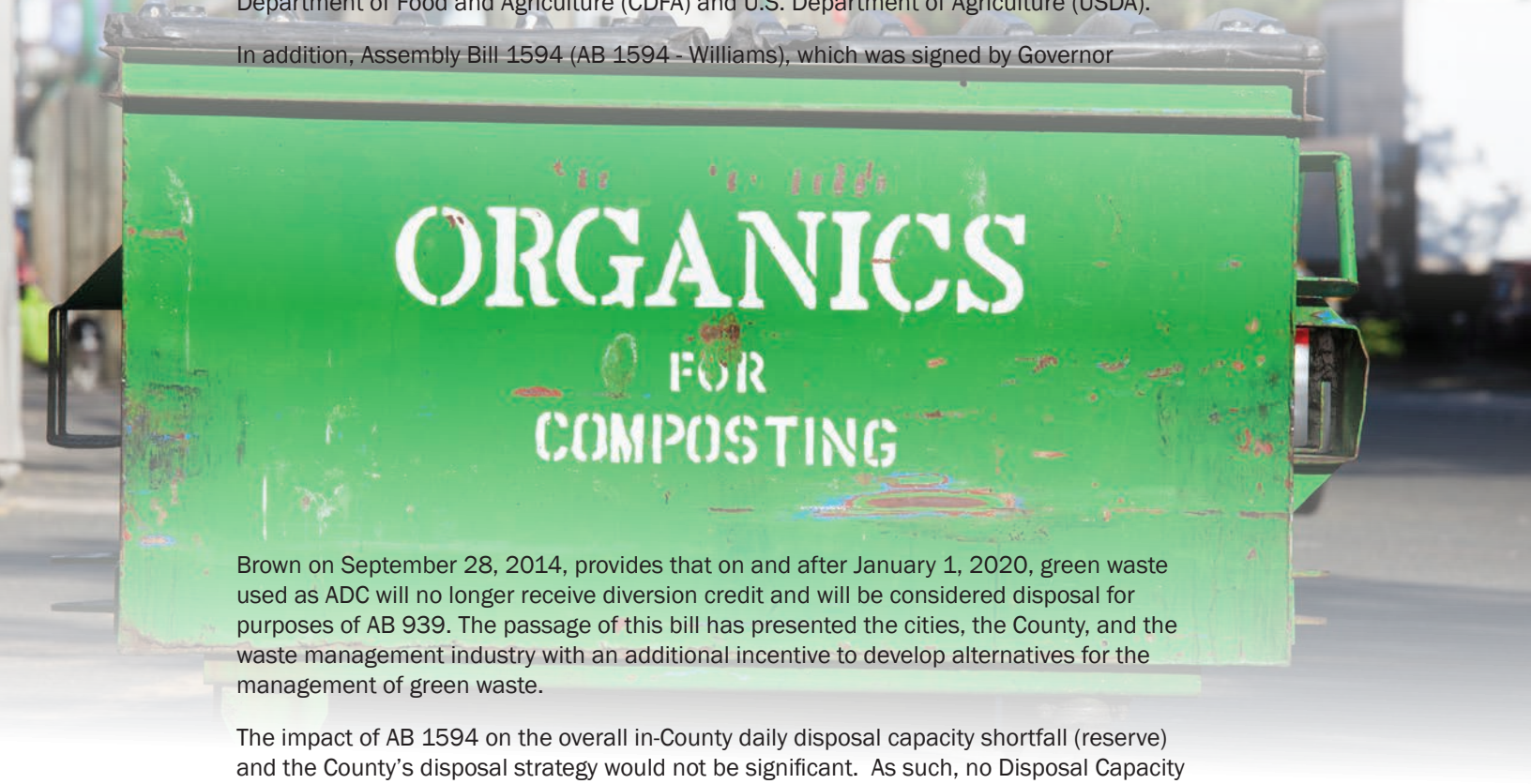
Source: Los Angeles County Public Works.

TABLE 4-17:
Scenario VII - All Solid Waste Management Options Considered Become Available (Cont.)

4.10.8 Impact of Green Waste as Alternative Daily Cover on the Disposal Capacity Need Analysis

Due to the closure of Puente Hills Landfill (PHL) in October 2013, jurisdictions that once depended on the facility to recycle their green waste as alternative daily cover (ADC) looked to other sites to recycle or compost their green waste. In 2013, approximately 363,975 tons of green waste ADC was used at in-County landfills. PHL alone accepted 49 percent, or 176,577 tons, which is equivalent to an average of 514 tons per day (tpd). In 2018, approximately 161,541 tons of green waste ADC was used at in-County landfills. Cities, the County, and the waste management industry have been working towards developing alternatives for the management of green waste. There are many challenges associated with green waste management, such as inadequate green waste management capacity in the County due to difficulties in permitting and developing composting facilities, limited markets for compost made from green waste, costs for long-distance transportation to out-of-County facilities and operations, as well as the need to work closely with California Department of Food and Agriculture (CDFA) and U.S. Department of Agriculture (USDA).

In addition, Assembly Bill 1594 (AB 1594 - Williams), which was signed by Governor



Brown on September 28, 2014, provides that on and after January 1, 2020, green waste used as ADC will no longer receive diversion credit and will be considered disposal for purposes of AB 939. The passage of this bill has presented the cities, the County, and the waste management industry with an additional incentive to develop alternatives for the management of green waste.

The impact of AB 1594 on the overall in-County daily disposal capacity shortfall (reserve) and the County's disposal strategy would not be significant. As such, no Disposal Capacity Shortfall Analysis Scenario is devoted to this impact in this Chapter.

4.11 SUMMARY OF SCENARIO ANALYSES

The preceding section analyzed the County's disposal need under seven scenarios. This Section summarizes the analyses and their findings:

The description of the variables in each scenario is summarized in **Tables 4-8**.

Except for Scenario I, as demonstrated by most of the scenarios, the County would be able to meet the disposal needs of all jurisdictions through the 15-year planning period.

In order to avoid a disposal capacity shortfall and meet the CSE requirement of providing 15-years of adequate disposal capacity, jurisdictions in the County would have to manage disposal of solid waste through a combination of various means such as expanding existing landfill capacity provided it can be done in a technically feasible and environmentally safe manner, increasing the diversion rate, developing alternative (e.g., conversion) technology facilities, and continuing exports to out-of-County landfills.

4.12 CONCLUSIONS

The preceding discussions demonstrated that the combination of an increase in diversion rate, development of alternative technologies, and use of out-of-County Class III landfills (identified in **Chapters 3**, **5**, **7**, and **9**) would address the disposal need of all the jurisdictions in the County for the 15-year planning period (2018-2033).

However, based on past and current experiences in siting new or expanding existing solid waste management facilities, it must be recognized that many (or all) of the potential facilities identified may encounter strong opposition during the permitting process, and that not all of the facilities may be approved. Even if a facility is successfully permitted, the total approved capacity and daily capacity may be substantially less than its capacity requested by the project proponent.

Based on the Disposal Capacity Need analyses and the foregoing discussion, the following can be concluded:

- 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 ensure that the provision of solid waste disposal services remain uninterrupted during the planning period and beyond. This must include increased recycling and other diversion efforts, creation/expansion of markets for the recycled materials and products with recycled content, development of alternative facilities (e.g., conversion technology and other alternative technology facilities), feasibility studies on potential development of a new in-County landfill, out-of-County disposal facilities, and development of the in-County/out-of-County infrastructure necessary for access to out-of-County disposal facilities including MRFs, intermodal facilities, waste-by-rail systems, and other transportation modes.
- The anticipated disposal needs of the County cannot be met by pursuing a single alternative (i.e., landfill expansions, transformation technologies, out-of-County disposal, etc.). Jurisdictions in the County must work on all fronts simultaneously in order to avoid a daily disposal capacity shortfall in the short, medium, and long term. As a part of this effort, economic incentives must be formulated to promote development of conversion technologies, other viable alternatives to landfill technology industries to reuse and recycle materials recovered from waste stream into new products, and markets for those products.
- Since it takes up to 15 years or more to fully permit a new or expand an existing landfill, 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 the County.

5

Alternative Technologies


HOLLYWOOD

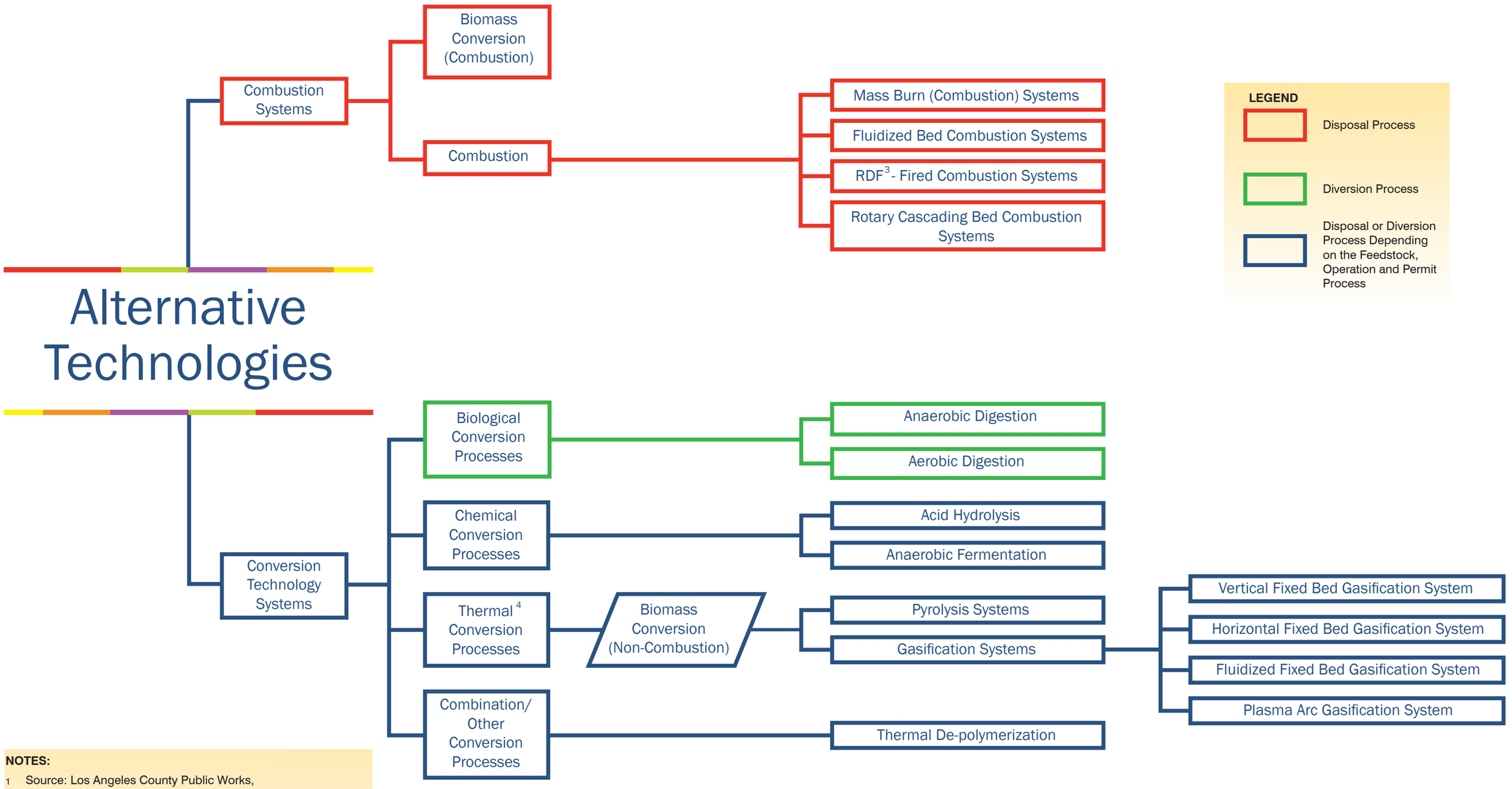
5.0 ALTERNATIVE TECHNOLOGIES

5.1 PURPOSE

The purpose of this Chapter is to describe technologies that provide an alternative to existing solid waste disposal practices and to provide a brief assessment on their current state of development. This Chapter also describes a number of benefits, advantages, and environmental constraints regarding the identified alternative technologies. This Chapter also explores various alternative technologies (see **Flowchart 5-1**) that divert solid waste from landfills to generate reusable energy and produce "green" fuels and other environmentally beneficial products.

The specific requirements of this Chapter are drawn from California Code of Regulations (CCR), Title 14, Section 18756.5, and discussed in Section 5.3 of this Chapter.

FLOWCHART 5-1: Alternative Technology Processes



NOTES:

1 Source: Los Angeles County Public Works, Environmental Programs Division

2 See Los Angeles County Conversion Technology Evaluation Report (Phase I Report), dated August 18, 2005

3 "RDF" means Refuse-Derived Fuel

4 Thermal Conversion can also process municipal solid waste in addition to biomass

FLOWCHART 5-1:
Alternative Technology Processes

5.2 DEFINITIONS

Due to increased interest in development of alternative technologies in the United States and the evolution of thermal technologies, confusion exists among widely used and overlapping terms. Section 5.2 defines a variety of terms and their application to alternative technologies. For clarity, select terms will be used throughout the Chapter.

Thus far, several issues in California have inhibited the development of alternative technologies. One of the key issues is that Federal, State, and local laws do not properly define these alternative technologies. For example, the term "transformation" is used to include both incineration (mass-burn) and some conversion (non-burn) technologies, while other technologies are not defined at all. State law imposes scientifically impossible standards on some thermal technologies, such as gasification, which California law prohibits from using oxygen in the conversion process or generating any water, hazardous waste, or air emissions.

The Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force (Task Force) continues to lobby the State Legislature to revise California law to accurately reflect the scientific distinctions among these technologies, and regulate them rationally based on their relative environmental benefits and impacts compared with other solid waste management options. To date, the State Legislature has been reluctant to address this issue, although recent legislation such as Los Angeles County-sponsored Senate Bill 498 (2014) have made some progress; therefore, the definitions offered in this Chapter seek to provide a clearer distinction between the various terminologies currently in use.

Definitions of key terms used in this Chapter are included when referenced. For a more complete listing of acronyms and definitions, please refer to the List of Acronyms and Glossary of Terms at the beginning and end of this document, respectively.

Key Terms

Transformation
Defined in PRC, Section 40201 as "incineration, pyrolysis, distillation, or biological conversion other than composting. 'Transformation' does not include composting, gasification, EMSW conversion, or biomass conversion."the CSE strives to use the terms waste-to-energy (combustion) and conversion technologies for clarity. Because the statutory definition of transformation makes no distinction between incineration and certain conversion technologies, CSE does not reference the term transformation. The CSE instead references the terms combustion and conversion technologies.

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

5.3 SPECIFIC REQUIREMENTS

CCR, Title 14, Section 18756.5(b) requires the following:

(a) If new or expandable solid waste disposal facilities are not available or are not sufficient to meet countywide or regionwide needs, each county and regional agency shall include strategies for disposing of solid waste. The discussion of strategies shall include, but is not limited to, the following:

(1) A description of the types (residential, commercial, industrial, and special) and quantities in cubic yards and in tons of waste in excess of remaining volumetric capacity of existing solid waste disposal facilities;

(2) A description of the diversion or export programs which will be implemented to safely handle and divert or dispose of excess solid waste. The description shall identify the existing solid waste disposal facilities, including those outside of the county or regional agency that will be used to implement these strategies. The description shall document how the proposed programs shall provide the county or regional agency with sufficient disposal capacity to meet the required minimum of 15 years of combined permitted disposal capacity as described in CCR, Section 18775(a) of Article 6.5.

5.4 INTRODUCTION

As discussed in **Chapter 1** (Section 1.1) and consistent with the goals established in **Chapter 2**, the primary goal of the Los Angeles County Countywide Siting Element (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.

Adequacy of disposal capacity is discussed and addressed in **Chapters 3**, **4**, **7** and **9**. These disposal capacity needs are met through utilization of existing in-County solid waste disposal facilities, increase in diversion rate, development of alternative technology facilities (e.g., conversion technology and **transformation** facilities), expansion of existing facilities, and out-of-County disposal. **Chapter 7** confirms that no new landfills will be developed in the County in the foreseeable future, and expanding existing landfills is a long and challenging process. 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.

Currently, most of the refuse in the County that is destined for disposal is transported by truck to **disposal sites** within the County; however, that will change during the planning period. The County is in a period of transition, and by the end of this planning period will rely on enhanced waste reduction and recycling efforts and facilities outside its borders to manage most of its waste. With the closure of the Puente Hills Landfill in 2013 and no expected development of new landfills in the County, it is projected that more solid waste will be exported out of the County by 2029. Therefore, it is critical to invest in alternative solid waste infrastructure that can address this need.

Among the most promising alternatives to landfill disposal and waste exporting are alternative technologies (e.g., conversion technologies).

Key Terms

Post-Recycled
Refers to material remaining after recycling that would have otherwise gone to disposal.

Incineration
Refers to 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. The flue gases are treated through a pollution control system which neutralizes acid gases and removes particulate matter and fly ash before the gases are dispersed into the atmosphere.

Combustion
Refers to a rapid conversion of chemical energy into thermal energy. The reaction is exothermic. Organic matter is oxidized with sufficient air (or oxygen) for reactions to go to completion. The carbon and hydrogen are oxidized to carbon dioxide and water, respectively. (See http://www.calrecycle.ca.gov/Organics/Glossary/Conversion.htm.)

5.5 ALTERNATIVE TECHNOLOGY DEVELOPMENTS IN LOS ANGELES COUNTY

5.5.1 Los Angeles County Efforts

For nearly a decade, the County has consistently supported the development of conversion technologies because of their potential to convert **post-recycled** MSW (material remaining after recycling that would have otherwise gone to landfills for disposal) into useful products, renewable energy, and biofuels. On July 27, 1999, the County Board of Supervisors formally adopted a series of recommendations that included support for the development of alternatives (such as conversion technologies) to landfilling and **incineration**.

As a strong advocate for furthering conversion technology development in California the County, in coordination with the Task Force, continues to encourage and promote local research of conversion technologies; and works to advance State legislation that would clarify the definition of conversion technologies and remove technically inaccurate definitions from State statutes. Due to current regulatory uncertainty, many potential investors have expressed hesitation in investing in conversion technologies in California.

Furthermore, the County and the Task Force support reprioritizing the solid waste management hierarchy to include conversion technologies, while allowing jurisdictions to obtain diversion credit when using conversion technologies to reduce waste disposal at landfills. Conversion technologies are a viable approach to achieving the self-imposed higher diversion and zero-waste goals implemented by many jurisdictions. Conversion technologies would also be a viable approach to achieving California's possible increase of the Statewide 50 percent waste diversion mandate.

The Alternative Technology Advisory Subcommittee (ATAS) of the Task Force was created in 2004 by a condition in the Puente Hills Landfill Conditional Use Permit (CUP). The membership of the ATAS was further adjusted by the Sunshine Canyon City/County Landfill CUP. The ATAS comprises a diverse group of professionals that includes representatives from local government, the California Department of Resources Recycling and Recovery (CalRecycle), the private sector, the public, consultants, etc. The group comprises experts in the conversion technologies field responsible for evaluating and promoting the development of conversion technologies. ATAS's ultimate goal is to facilitate development of one or more demonstration conversion technology facilities in Southern California, which would showcase the benefits of conversion technologies as a technically, economically, and environmentally viable alternative method of managing solid waste within the County.

The Task Force vigorously supports increased study of and facilitation for conversion technologies within the County through the following actions:

- Evaluating the technical, economic, and environmental feasibility of conversion technologies.
- Promoting the development of conversion technologies by advocating for changes in legislation and regulations.
- Acting as a regional resource, disseminating accurate information regarding conversion technologies, and urging stakeholders throughout the State to participate in the development of these technologies.

The County and the Task Force strongly advocate for alternative technologies to manage solid waste. The County and the Task Force successfully promoted different technologies, as demonstrated by the following significant efforts:

- Built coalitions with numerous government agencies and associations, such as the League of Council of Governments, and many other entities to promote development of conversion technologies through policies, statements, and other advocacy activities.
- Advanced discussions with several site owners and operators in Los Angeles County who are interested in developing a conversion technology facility in the County.
- Expanded outreach efforts, including development of science-based stakeholder resources and an educational forum.
- Worked with the then-County Chief Administrative Officer (CAO) and now Chief Executive Officer (CEO) to sponsor two legislative bills in 2000 that intended to provide 100 percent diversion credit for waste processed at conversion technology facilities in order to create an incentive for their development. This effort created the momentum that resulted in the 2002 passage of Assembly Bill 2770 (Matthews), which required the former California Integrated Waste Management Board (CIWMB) to study these technologies and provide recommendations to the State Legislature.
- Attended and participated in workshops and forums to increase the County's knowledge and expertise in this area and to affirm the County's position and support.
- Established the ATAS as an outgrowth of the commitment of the County and the Task Force to conversion technologies, supported by a condition in the CUP of the Puente Hills landfill adopted in 2003.
- Conducted a conversion technology survey to public and private stakeholders requesting feedback on legislative actions, regulatory changes, and incentives that are necessary to facilitate development of conversion technologies in California.
- Developed Conversion Technology Online Vendor Database. The database now includes nearly 60 technology listings and is available to the public on the Department's SoCalConversion.orq website
- Partnered with the California State Association of Counties (CSAC) to sponsor Senate Bill 498, conversion technology legislation introduced by Senator Ricardo Lara (D-33), which was signed into law on September 28, 2014. Senate Bill 498 will add **noncombustion** thermal conversion technologies to the definition of **biomass conversion**, creating a clear permitting pathway for these technologies while providing incentives to divert biomass from landfill disposal. The goal is to establish clear definitions in statute that promote the highest and best use of resources while supporting the state's key environmental goals. The bill would help reach California's 75 percent recycling goal by facilitating additional mechanisms through which to sustainably manage the tens of millions of tons of materials that cannot be reduced, recycled, or composted. The bill would also assist in meeting the goals of the state's Bioenergy Action Plan, which has identified municipal solid waste as a substantially underutilized resource for biomass feedstock.

The County and the Task Force are committed to promoting solutions that address the solid waste management issues of the County, such as implementation of the Southern California Conversion Technology Development Project.

Key Terms

Biomass Conversion
Defined in California Public Resources Code (PRC), Section 40106 as: the production of heat, fuels, or electricity by the controlled combustion of, or the use of other noncombustion thermal conversion technologies on, the following materials, when separated from other solid waste: (1) agricultural crop residues; (2) bark, lawn, yard, and garden clippings; (3) leaves, silvicultural residue, and tree and brush pruning; (4) wood, wood chips, and wood waste; (5) non-recyclable pulp or non-recyclable paper materials.
'Biomass conversion' does not include the controlled combustion of recyclable pulp or recyclable paper materials, or materials that contain sewage sludge, industrial sludge, medical waste, hazardous waste, or either high-level or low-level radioactive waste.
For purposes of this section, 'nonrecyclable pulp or nonrecyclable paper materials' means either of the following, as determined by the department:
Paper products or fibrous materials that cannot be technically, feasibly, or legally recycled because of the manner in which the product or material has been manufactured, treated, coated, or constructed.
Paper products or fibrous materials that have become soiled or contaminated and as a result cannot be technically, feasibly, or legally recycled.

5.5.1.1 Southern California Conversion Technology Development Project

The County consistently supports the development of conversion technologies. Development of in-County, commercial scale conversion technology facilities is a key element in the County's strategy for assuring long-term disposal capacity to meet the needs of over 10 million residents and thousands of businesses county-wide. The County Public Works (Public Works), in concert with the Task Force and in collaboration with state universities, CalRecycle, and neighboring counties, conducted extensive studies to evaluate the viability of these technologies to manage solid waste.

Phase I – Initial Technology Evaluation (2004-2005)

Between 2004 and 2005, Public Works conducted a preliminary evaluation of a range of conversion technology suppliers, and initiated efforts to identify Material Recovery Facilities (MRF) and Transfer Stations (TS) in Southern California that could potentially host a demonstration conversion technology facility. The benefits of such a pairing are significant and include readily available feedstock otherwise destined for landfill disposal, appropriate siting, preprocessing capacity, transportation (cost and pollution) avoidance, and other mutual benefits. Additionally, this proposed siting requirement would ensure that the waste stream (feedstock) processed by conversion technology facilities is strictly residual solid waste remaining after removal of all feasibly recoverable materials.

This effort resulted in a report titled the "Conversion Technology Evaluation Report for Los Angeles County Public Works and the Los Angeles Solid Waste Management Committee/Integrated Waste Management Task Force's Alternative Technology Advisory Subcommittee" (also known as the "Phase I Report"), which the Task Force officially adopted on August 18, 2005. Research for the Phase I Report assessed the viability of various conversion technologies, with the goal of vetting technologies for a potential demonstration facility. The Phase I Report also identified a preliminary short list[1] of technology suppliers and MRF and TS sites (see Table 3-2 of Phase I Report at http://dpw.lacounty.gov/epd/SoCalConversion/pdfs/CT_Eval_Report.pdf), and a framework for developing a demonstration facility at one of the MRF or TS sites.

Phase II – Detailed Evaluation and Vetting Efforts toward Facilitation of One or More Demonstration Facilities (2006-2008)

Following an extensive vetting process, the County identified four technology suppliers that demonstrated the technical capabilities of their conversion technologies to process MSW and are ready for participation in this project. Additionally, four of the MRF and TS sites evaluated were determined suitable for co-location with a conversion technology. This vetting process is described in detail in the "Los Angeles County Conversion Technology Report for Los Angeles County Public Works and the Los Angeles Solid Waste Management Committee/Integrated Waste Management Task Force's Alternative Technology Advisory Subcommittee: Phase II Assessment," dated October 2007 (also known as the "Phase II Report").

The Phase II Report represents Public Works' continued efforts to facilitate development of a conversion technology demonstration facility in Southern California. Such efforts included over a year of work by Public Works, the ATAS, and technical consultants that resulted in the following key activities:

- An independent evaluation and verification of the qualifications of selected technology suppliers and the capabilities of their conversion technologies.

1 Table 3-2 of the Phase I Report lists 13 MRF/TS facilities interested in a conversion facility, out of which a short list of preferred MRFs for the first phase of development of a conversion facility were identified (see Section 4.5.1 of Phase I Report).

- An independent evaluation of candidate MRF and TS sites to determine suitability for integration with one or more technologies.
- A review of permitting pathways.
- Identification of funding opportunities and financing mechanisms.
- Identification of potential County incentives (i.e., supporting benefits) to encourage facility development among potential project sponsors.

The Phase II Report describes these activities in detail. Also, the Phase I and Phase II Reports include more detailed information on the vetting process.

Phase III and IV – Long Term Development of Conversion Technologies (2009 - Present)

Phase III builds upon the efforts commenced in Phase II by completing the permitting process, design, construction, and operation of one or more demonstration facilities selected in Phase II.

On April 20, 2010, the County Board of Supervisors unanimously approved three Memoranda of Understanding (MOU) for three conversion technology demonstration projects and awarded a contract for consultant services for Phase III and Phase IV to develop alternatives to landfills within the County. The Phase III demonstration projects included a CR&R Waste Services anaerobic digestion facility in Perris, CA; a County of Riverside **pyrolysis** facility in Rubidoux, CA; and a Rainbow Environmental Services **gasification** facility in Huntington Beach, CA. The latter two projects are on indefinite hold due to economic constraints. The Perris project is moving forward and has been awarded over six million dollars in grant funding from the state. The project completed the design phase and entered the initial construction phase in the spring of 2014. The initial construction phase has since been completed and the second phase of construction is nearing completion.

At their hearing on April 20, 2010, the Board of Supervisors also instructed the Director of Public Works in coordination with appropriate stakeholders, to: assess the feasibility of developing a conversion technology facility at one or more County landfills, identify other potentially suitable sites within the County, and report back Public Works' findings to the Board of Supervisors in six months.

There are potential host sites for a conversion technology facility that were submitted to the County. These sites are discussed in the "Los Angeles County Conversion Technology Project, Preliminary Siting Assessment" (see **Appendix 5A**), submitted to the Board of Supervisors on October 20, 2010.

Public Works also reevaluated the conversion technology marketplace beginning with two Requests for Expression of Interest (RFEI) issued in June 2011. Public Works sent the first RFEI to conversion technology vendors. Technologies that met Public Works' minimum criteria were included in a publicly-available database. Public Works sent the second RFEI to financial firms with previous experience funding solid waste and renewable energy projects. In June 13, 2013, Public Works issued a second set of RFEI solicitations. Public Works requested from conversion technology providers and/or project developers representing conversion technology provider's information on their technology as well as qualifications and resources of their company. Additionally, another RFEI was issued by Public Works for financial service firms that are in the business of assisting in the structuring and financing of conversion technology projects.

Phase IV is pursuing the siting of commercial scale conversion technology facilities in the County capable of managing the County's waste stream. The County will support the Phase IV project by providing technical assistance of a consultant contract and assistance with permitting, finance, outreach, market research, and feasibility studies to facilitate the development of conversion technology facilities in Los Angeles County.

Key Terms

Pyrolysis
Refers to a chemical decomposition process achieved by heating organic materials in the absence or near absence of oxygen.

Gasification
Defined in PRC, Section 40117 as "a technology that uses a noncombustion thermal process to convert solid waste to a clean burning fuel for the purpose of generating electricity, and that, at minimum, meets all of the following criteria: (a) The technology does not use air or oxygen in the conversion process, except ambient air to maintain temperature control. (b) The technology produces no discharges of air contaminants or emissions, including greenhouse gases, as defined in subdivision (g) of [HSC, Section 38505]. (c) The technology produces no discharges to surface or groundwaters of the state. (d) The technology produces no hazardous waste. (e) To the maximum extent feasible, the technology removes all recyclable materials and marketable green waste compostable materials from the solid waste stream prior to the conversion process and the owner or operator of the facility certifies that those materials will be recycled or composted. (f) The facility where the technology is used is in compliance with all applicable laws, regulations, and ordinances. (g) The facility certifies to the board that any local agency sending solid waste to the facility is in compliance with this division and has reduced, recycled, or composted solid waste to the maximum extent feasible, and the board makes a finding that the local agency has diverted at least 30 percent of all solid waste through source reduction, recycling, and composting."materials that have become soiled or contaminated and as a result cannot be technically, feasibly, or legally recycled.

To ensure that this process is transparent, and resources are available to all interested jurisdictions and stakeholders, the County developed a website, www.SoCalConversion.org, which contains updated project information. Additionally, the County provides a monthly e-newsletter of conversion technology news and updates to all interested parties.

For additional and more detailed information on the characteristics of various combustion systems and conversion technology systems, see Sections 5.4 and 5.5, and Figure 5-1 of this Chapter. For additional and more detailed information and discussion on siting conversion technology facilities in the County, see Chapter 6 ("Facility Siting Criteria"), and Chapter 10 ("Finding of Conformance") of this CSE. Also see Appendix of Phase I Report for a list of conversion technology distributors.

White Paper

Public Works plans commissioned a comprehensive, peer reviewed conversion technology (CT) White Paper that compares the greenhouse gas emissions from an integrated CT facility to transporting an equivalent amount of waste to a landfill. It is entitled Comparative Greenhouse Gas Emissions Analysis of Alternative Scenarios for Waste Treatment and/or Disposal, dated February, 2016 and can be found on the County's website, www.SoCalCoversion.org. The White Paper determined that an Integrated MRF with conversion technologies will achieve a net reduction in cumulative greenhouse gas emissions as compared to landfill disposal.

5.5.2 City of Los Angeles Alternative Technology Efforts

The City of Los Angeles adopted a 20-year (2005-2025) solid resources management blueprint called RENEW LA Plan (Recovering Energy, Natural Resources, and Economic Benefits from Waste for Los Angeles) to achieve zero waste within the City by 2025. RENEW LA relies on two key elements: (1) the continued enhancement and growth of existing diversion programs and development of new diversion programs; and (2) the establishment of seven conversion technology facilities, with one facility located in each of the City's six wastesheds, and a seventh facility located in the southern California region, to process post-source separated municipal solid waste (MSW) still being disposed in landfills.

With the RENEW LA Plan as the blueprint, the City of Los Angeles, Bureau of Sanitation embarked upon a stakeholder-driven zero waste master planning effort, known as the Solid Waste Integrated Resource Plan (SWIRP). SWIRP takes a comprehensive long-term look at achieving zero waste in the City through the implementation of various upstream and downstream policies, programs and facilities, including the completion of alternative technology facilities.

SWIRP's Waste Management Hierarchy identifies upstream manufacturer and consumer responsibility first, through producer responsibility and upstream source reduction and reuse. Then, source separation of materials through recycling, **composting**, or anaerobic digestion through the City's blue, green, and brown bin programs. And thereafter, management of remaining black bin post-source separated MSW through alternative technologies, prior to disposal of residual waste in landfills. (See **Appendix 5B**: **City of Los Angeles SWIRP Waste Management Hierarchy**)

SWIRP identifies viable alternative technologies to process municipal solid waste for the purpose of increasing diversion from landfills, reducing greenhouse gas emissions, producing energy, and recovering renewable resources. RENEW LA Plan Synopsis and the SWIRP factsheet are included in this document (see Appendix 5B). For more detailed information on the RENEW LA Plan and the SWIRP visit http://dpw.lacounty.gov/epd/ConversionTechnology/Reports/RENEW_LA_Plan.pdf and http://lacitysan.org/srssd/swirp/pdf/2013/2013Oct28SWIRPdocsFINALrd.pdf.

City of Los Angeles stakeholders believe that upstream and downstream policies will net 80% diversion from landfilling. The energy in the remaining 20% should be harnessed in an environmentally safe and efficient manner and not disposed in landfills.

SWIRP defines alternative technologies as a host of specific thermal, biological, chemical, and physical technologies such as mixed material processing (mechanical separation), refuse derived fuel (RDF), advanced thermal recycling (2nd generation waste-to-energy), gasification, pyrolysis, plasma arc, anaerobic digestion and composting, among others. These technologies are all methods to process MSW as an alternative to landfill disposal.

In May 2011, the City of Los Angeles, Board of Public Works (Board) authorized the Bureau of Sanitation to enter into contract negotiations with Green Conversion Systems (GCS) to develop the first commercial scale Alternative Technology facility. GCS, an advanced thermal recycling development partner, is proposing to build a 1,100 ton per day facility in the City of Los Angeles that would include an upfront mechanical separation pre-processing system to first recover recyclable materials, followed by an advanced thermal recycling system to produce energy and recover by-products. Negotiations between the Bureau and GCS are ongoing.

In the summer of 2011, the Los Angeles City Council unanimously approved a motion that authorized and directed the BOS to conduct concurrent negotiations with Urbaser-Keppel Seghers for an emerging Alternative Technology facility to pioneer new methods for disposal of MSW.

Key Terms

Composting
Defined in PRC, Section 40116.1 as "the controlled or uncontrolled biological decomposition of organic wastes." Further defined in CCR, Title 14, Section 17225.14 as "a controlled microbial degradation of organic wastes yielding a safe and nuisance free product."

In December 2012, the City's Board authorized the Bureau to enter into contract negotiations with Urbaser-Keppel Seghers for development of an integrated-scale alternative technology facility. The proposed facility may include a combination of one or more of the following technologies: upfront mechanical pre-processing system, anaerobic digestion, composting, advanced thermal recycling, and/or gasification, and would include the flexibility to negotiate for increased tonnage commitments. Negotiations between the Bureau and Urbaser-Keppel Seghers for the development of an emerging alternative technology facility are ongoing.

On June 11, 2014, The City of Los Angeles published an RFP from solid resources collection companies to provide solid waste, commingled recyclables, and organics collection, transfer, disposal and processing services to commercial and multifamily establishments in the City. The City intends to enter into exclusive franchise agreements to provide the services described in the RFP. The solid resources collection company that is awarded the contract for each franchise will have a dedicated waste stream, making it financially viable to develop new organics processing facilities which may include alternative technologies. These facilities could also potentially process organics originating from other jurisdictions.

Additionally, on October 14, 2014, the City Council of the City of Los Angeles authorized the Bureau to pursue negotiations for a partnership with the City of Long Beach and Sanitation Districts of Los Angeles County for co-ownership and operation of Southeast Resource Recovery Facility.


Bank of America
KPMG

5.6 COMBUSTION SYSTEMS

Combustion facilities utilizing MSW as a feedstock currently operate within the County. End products for combustion facilities are typically ash, inert material, and steam used for electricity generation. A small amount of electricity produced from these combustion facilities is used on-site to power the facility, which sells the excess energy to power utilities.

Combustion systems are used to reduce the volume of solid waste, destroy pathogens, break down chemical structures, and produce energy. Combustion occurs at high temperatures to produce gas, ash, and inert residual material. Heat from the controlled burning process is used to produce steam, which is then used to generate power. Pollution control for gas produced is typically in the form of scrubbers and filters. The scrubbers neutralize the acid gases within the resulting gas. Filters remove minute ash particles from any gas produced, as required by current air quality standards. Typically, the ash-crete generated as a result of combustion system could be used as road base material in various types of road construction project and not limit to landfill.

5.6.1 Combustion

Combustion, as defined in Section 5.2.8 of this Chapter, is used to manage solid waste in compliance with state and regional environmental regulations.

Solid waste combustion systems are designed to operate with two types of solid waste fuel: commingled solid waste (mass burn) and pre-processed solid waste known as Refuse-Derived Fuel (RDF-fired).

Combustion technology was identified as one of the effective options currently available to reduce the need for landfill disposal. Combustion is commercially, technically, and environmentally feasible. From the 1970s to the 1990s, combustion technology grew as a result of energy shortages and relatively high energy prices. State legislation enacted in the 1980s encouraged the development of combustion projects. However, political resistance and negative public perception regarding combustion technology have increased due to environmental and health risk concerns.

Environmental issues associated with a combustion facility include potential impacts to air quality, water quality, traffic, aesthetics, and noise. The combustion of refuse to recover energy generates emissions that require the use of sophisticated control devices. Controlled combustion, through the use of automated damper controls for air distribution, minimizes nitrogen oxide (NOx) and carbon oxide (COx). In addition, demonstrations establish that ammonia injection into the furnace of a combustion facility is successful in further reducing NOx emissions. Sulfur dioxide (SOx), 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 combustion facility is a filter baghouse that removes up to 99.95 percent of the **particulate matter**. For additional and more detailed information on the characteristics of various combustion systems, see **Figure 5.1** of this Chapter.

The current lack of enthusiasm for combustion facilities is also associated with economic factors involving the high capital costs of developing such facilities, deregulation of the energy industry, and strong public opposition based on air quality concerns encountered by previous proposals. Additionally, development has been discouraged by combustion's current classification as disposal (rather than diversion) under State law[2].

Two types of Combustion Systems, namely, fluidized bed combustion and mass burn combustion systems, are described below.

Key Terms

Particulate Matter (PM)
Refers to solid or liquid particles of soot, dust, smoke, fumes, and aerosols.

2 However, under current State law non-source separated waste disposals at transformation facilities are granted 10% diversion credit.

5.6.1.1 Fluidized Bed Combustion Systems

Fluidized Bed Combustion (FBC) processes include a heated bed of particles, typically sand or another type of granular media, suspended (fluidized) within a steel column through use of an upward flow of air or fluid. Oxygen is supplied more freely through the flow action of the bed media due to the turbulent contact between the bed media and the fuel media. Complete **oxidation**, including the production of flames, maximizes thermal efficiency and minimizes the amount of char produced by the fuel media. Low combustion temperature reduces nitrogen oxide formation, and the addition of crushed limestone to the fluidized bed absorbs sulfur dioxide. The FBC process is best used to manage low British Thermal Unit (BTU) fuel media and MSW with high moisture content.

Combustion technology was identified as one of the effective options currently available to reduce the need for landfill disposal.

Key Terms

Oxidation
Refers to the chemical process of adding oxygen to break down pollutants or organic waste, e.g., destruction of chemicals compounds in sewage by bacterial and chemical means.

5.6.1.2 Mass Burn Combustion Systems

Mass burn combustion systems are the predominant type of combustion systems. Solid waste is typically burned at temperatures of about 2200 °F (1204°C) in water wall boilers where thermal energy in the form of steam is recovered. The steam is then passed through turbines where the thermal energy is converted to electricity.

Mass burn combustion processes are capable of achieving a 75 percent mass reduction and 90 percent volume reduction in the solid waste, with ash being the only residue produced. In a mass burn combustion system, minimal processing is given to solid waste before it is placed in the charging hopper of the system. A crane operator responsible for loading the charging hopper manually rejects obviously unsuitable items. One of the most critical components of a mass burn combustion system is the grate system, which serves several functions, including the movement of waste through the system, mixing of the waste, and injection of combustion air.

There are two transformation facilities (also known as waste-to-energy facilities) that utilize mass burn combustion process operating in the County, the Commerce Refuse-to-Energy Facility (CREF) in the City of Commerce (closed as of June 2018) and the Southeast Resource Recovery Facility (SERRF) in the City of Long Beach. Nevertheless, both facilities operate within the stringent requirements of the South Coast Air Quality Management District (SCAQMD). In addition, these facilities are required to use reclaimed water, as shown in **Figures 5-1** and **5-2** of this Chapter. The County has no current plans to develop additional transformation facilities; however, other jurisdictions may propose such facilities.

The transformation facilities located in the County are described below.

Commerce Refuse-to-Energy Facility

CREF was a Joint Powers Agency (JPA) formed by the City of Commerce and the County Sanitation Districts of Los Angeles County (CSD). The CSD operated CREF since its inception in 1987 until its closure in June 2018. It successfully met SCAQMD requirements and produced some of the lowest emissions from a facility of its type worldwide. The facility combusted approximately 286 tons of refuse per day and generated approximately 10 megawatts (MW) of electricity that was sold to Southern California Edison (SCE). Residual ash was created as a result of the combustion process. CREF would add cement to the ash to form ash-crete and transport the ash-crete to the Puente Hills Landfill where it was recycled as a base material for roads.

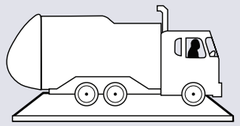
Southeast Resource Recovery Facility

SERRF is a JPA 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 process about 1,370 tons of refuse per day. As an end product, the combustion process generates approximately 36 gross MW of electricity (with 30 MW of electricity sold to SCE).

Residual ash is created as a result of the combustion process. There is an ash treatment facility operating at the site. Currently, SERRF adds cement to the ash and transports the mix to a local landfill where it is recycled as a base material for roads.

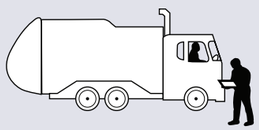
FIGURE 5-1: Commerce Refuse-to-Energy Facility (CREF), City of Commerce, California, USA Schematic Process Diagram

1. WEIGH SCALES



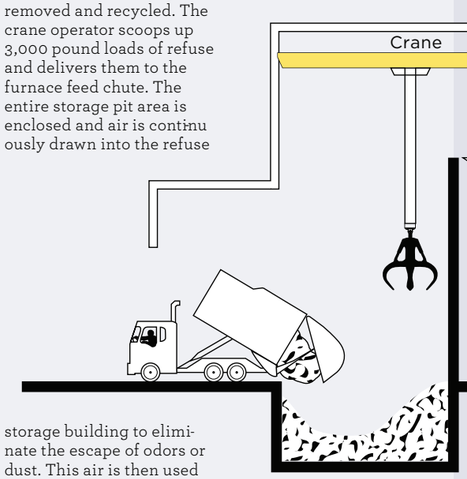
Weigh Scales

Each truck must be weighed and pay a fee based upon the load weight before disposing of its load. All loads are screened by meters for radioactive materials, which if found, will be safely handled by the County Department of Public Health.



2. REFUSE STORAGE PIT

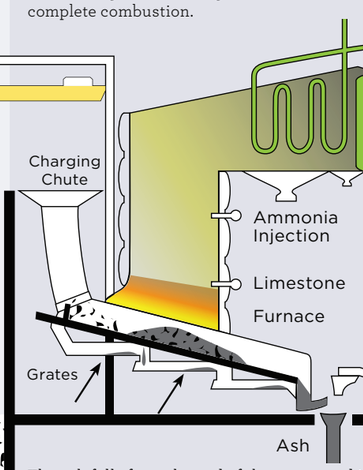
After weigh-in, the trucks discharge their loads into the refuse storage pit. The storage pit has a 1,200 ton capacity, enough to run the Facility for three to four days. Some loads are pulled aside on an unannounced basis and checked for hazardous wastes each day. All loads are scanned for large pieces of ferrous metal which are removed and recycled. The crane operator scoops up 3,000 pound loads of refuse and delivers them to the furnace feed chute. The entire storage pit area is enclosed and air is continu ously drawn into the refuse storage building to eliminate the escape of odors or dust. This air is then used for burning of the refuse. Odors are destroyed by the high temperatures in the furnace. Four carbon filters are used for odor control at times when the furnace is shut down for maintenance.

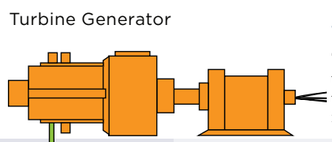


3. FURNACE & BOILER

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 that push the burning refuse through the furnace and ensure complete combustion.

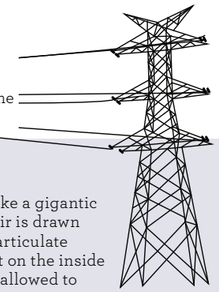
The ash falls from the end of the grates and is quenched with water. The hot gases of combustion rise through the furnace as they travel to the boiler. The walls of the furnace contain steel pipes carrying water that begins to heat as the gases pass over the pipes. Ammonia is injected into the furnace to remove oxides of nitrogen. Limestone is also added to aid in acid gas removal. As the hot gases enter the boiler, the hot water contained in the boiler tubing is converted to high pressure and temperature steam.





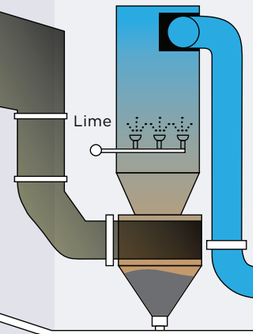
4. TURBINE GENERATOR

The Steam leaving the boiler enters a steam turbine. The high pressure steam causes the turbine blades to turn at high speed. The turbine is coupled to a generator that produces 11.5 megawatts of power. One and a half mega watts of this power is used to run the plant leaving 10 megawatts to be sold to Southern California Edison. The revenue from the sale of power helps to retire the bonds that were sold to build the Facility.



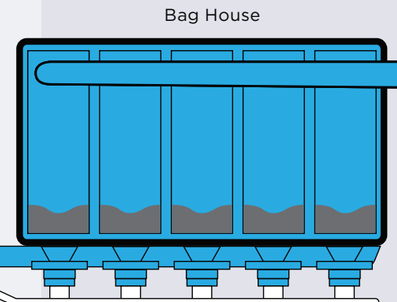
5. DRY SCRUBBER

After leaving the boiler, the hot combustion gases travel through the beginning of the sophisticated air pollution control system. The dry scrubber removes acid gases such as sulfur dioxide and hydrochloric acid. These are by-products of the refuse combustion. Lime slurry is sprayed into the exhaust stream to convert the acid gases to a solid which is removed downstream in the baghouse. In excess of 95% of the sulfur dioxide and hydrochloric acid are removed in this process.



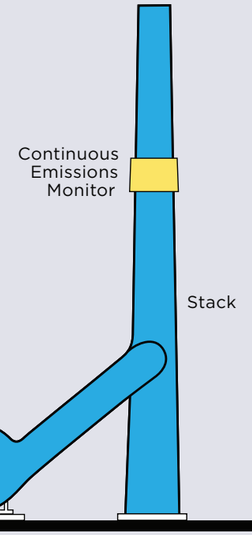
6. BAG HOUSE

The baghouse operates like a gigantic vacuum cleaner. As the air is drawn through the baghouse, particulate matter and fly ash are left on the inside of the bags and the air is allowed to travel through.
The baghouse contains eight modules with bags made of fiberglass. The modules are cleaned by blowing air, in the reverse direction, through the bags. The particles and fly ash are removed through the bottom. This process removes 99.5% of the particulate matter in the airstream down to sub-micro-scopic levels, eliminating any visible plume.



After leaving the baghouse, the cleaned exhaust gases exit through a 150 foot stack.

After leaving the baghouse, the cleaned exhaust gases exit through a 150 foot stack. Monitoring devices incorporated into the stack continuously monitor the air for oxides of vnitrogen, sulfur dioxides, and carbon monoxide.



7. ASH TREATMENT & RECYCLING

The ash exiting the refuse-to-energy plant makes up approximately 30% of the total weight of the incoming refuse. The bottom ash is screened and metals are removed forrecycling. The screened bottom ash and fly ash are mixed with cement to make concrete which is then used at the landfill as road base. 99% by weight of the incoming refuse is recycled as metals, energy, or roadbase.

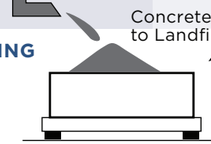
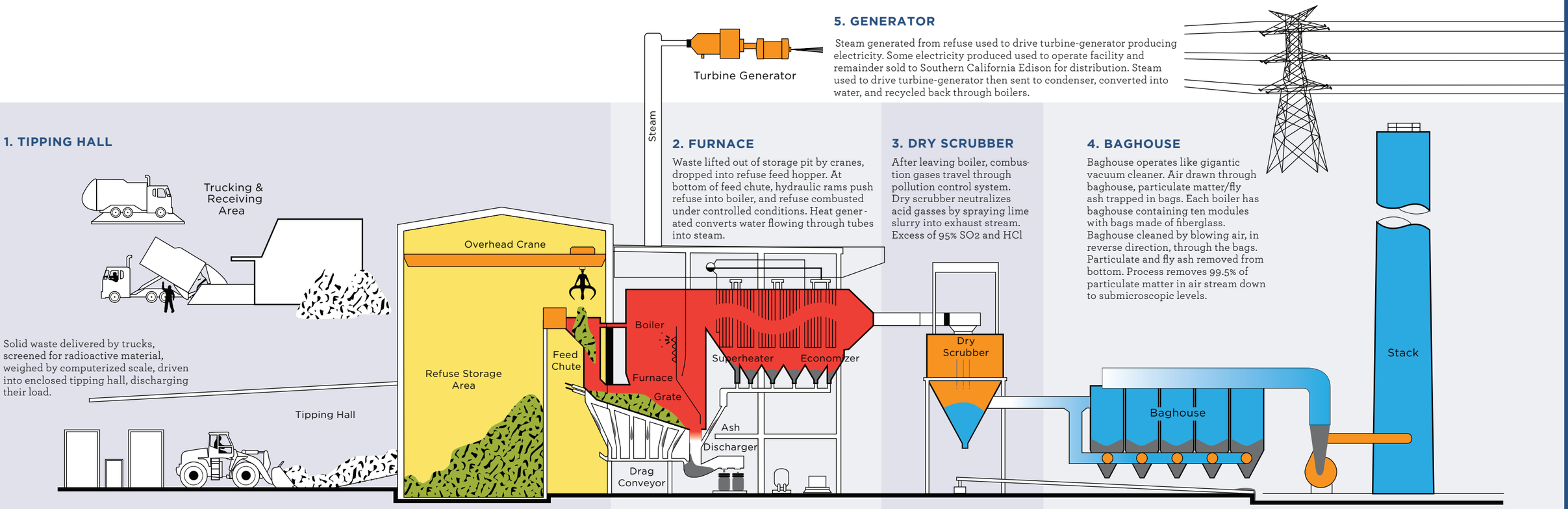


FIGURE 5-1: Commerce Refuse-to-Energy Facility (CREF), City of Commerce, California, USA Schematic Process Diagram

FIGURE 5-1:
Commerce Refuse-to-Energy Facility (CREF), City of Commerce, California, USA
Schematic Process Diagram

FIGURE 5-2: Southeast Resource Recovery Facility (SERRF) in City of Long Beach, California, USA Schematic Process Diagram



1. TIPPING HALL

Solid waste delivered by trucks, screened for radioactive material, weighed by computerized scale, driven into enclosed tipping hall, discharging their load.

Refuse inspected for unprocessible waste, pushed into refuse storage pit by front end loader.

2. FURNACE

Waste lifted out of storage pit by cranes, dropped into refuse feed hopper. At bottom of feed chute, hydraulic rams push refuse into boiler, and refuse combusted under controlled conditions. Heat generated converts water flowing through tubes into steam.

Storage pit area is enclosed, air continuously drawn from pit area, sent through boilers removing dust/odor, destroyed by high temperatures. Carbon filters used for odor control when boilers shut down for maintenance.

Floor of furnace has moving grates pushing refuse through boiler. Refuse passes through boiler, ash discharged into quench tank. Quench tank cools and eliminates dispersion of the ash. Thermal DeNox system, injects ammonia into boiler's chamber, used to control nitrogen oxides.

3. DRY SCRUBBER

After leaving boiler, combustion gases travel through pollution control system. Dry scrubber neutralizes acid gasses by spraying lime slurry into exhaust stream. Excess of 95% SO_2 and HCl removed in process. Reacted lime/ash removed from bottom of scrubber.

4. BAGHOUSE

Baghouse operates like gigantic vacuum cleaner. Air drawn through baghouse, particulate matter/fly ash trapped in bags. Each boiler has baghouse containing ten modules with bags made of fiberglass. Baghouse cleaned by blowing air, in reverse direction, through the bags. Particulate and fly ash removed from bottom. Process removes 99.5% of particulate matter in air stream down to submicroscopic levels.

After leaving baghouse, cleaned exhaust gases exit through a 265 foot tri-flue stack. Emissions monitored by combination of continuous monitors and periodic stack sampling.

5. GENERATOR

Steam generated from refuse used to drive turbine-generator producing electricity. Some electricity produced used to operate facility and remainder sold to Southern California Edison for distribution. Steam used to drive turbine-generator then sent to condenser, converted into water, and recycled back through boilers.

The ash from the furnace, dry scrubber, and baghouse is treated and transported to the landfill where it is used as road base material.

6. ASH CONVEYORS

The ash from the furnace, dry scrubber, and baghouse is treated and transported to the land fill where it is used as road base material.

FIGURE 5-2:
Southeast Resource Recovery Facility (SERRF) in City of Long Beach, California, USA
Schematic Process Diagram

5.6.1.3 Refuse-Derived Fuel (RDF) -Fired Combustion Systems

Refuse-Derived Fuel (RDF) is the product of processing municipal solid waste to separate the noncombustible from the combustible portion and preparing the combustible portion into a form that can be effectively fired in an existing or new boiler. RDF can be produced in shredded or fluff form, or as densified pellets or cubes. Densified RDF is costlier 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. An RDF-fired system can also be controlled more precisely than a mass-fired system because of the homogeneous nature of RDF. The RDF-fired system also allows for better combustion control and better performance of air pollution control devices.

5.6.1.4 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. RCBC 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. Almost all RCBC systems required extensive redesign to attain acceptable levels of reliability and environmental quality.

5.6.2 Biomass Conversion (Combustion)

In accordance with the current state law, PRC 40106 (a), biomass conversion is defined to include a controlled combustion process for the production of heat, fuels, or electricity, on the following materials, when separated from other solid waste: (1) agricultural crop residues; (2) bark, lawn, yard, and garden clippings; (3) leaves, silvicultural residue, and tree and brush pruning; (4) wood, wood chips, and wood waste; (5) non-recyclable pulp or non-recyclable paper materials.

5.7 CONVERSION TECHNOLOGY SYSTEMS

Conversion technologies provide great flexibility in managing residual waste streams such as Municipal Solid Waste (MSW). There are three classes of conversion technologies: thermal, biological, and chemical. All these conversion technologies may also be combined with mechanical processes to further improve the processes and reduce the amount of residual material to be landfilled, which ultimately conserves current landfill capacity. The majority of byproducts and residuals from conversion technologies are also inert materials, which dramatically decrease landfill material decomposition and emission of greenhouse gases.

Due to current challenges related to the permitting, siting, and development of conversion technologies, Los Angeles County (County) has studied the challenges and benefits of these technologies. These challenges and benefits are also discussed within this Chapter in Section 5.7 and **Table 5-1** (Comparison of Conversion Technology Systems).

Conversion technology systems are diversified alternatives to conventional landfill disposal. These technologies may be used in conjunction with current landfill practices to extend the life of existing landfills. These technologies include thermal processes such as pyrolysis and gasification; biological processes such as anaerobic digestion; and chemical processes such as ethanol fermentation. These processes are capable of converting MSW into useful products, chemicals, green fuels, and renewable energy.

Conversion technologies represent the most significant opportunity for beneficial use of MSW to come along since passage of the California Integrated Waste Management Act of 1989, Assembly Bill 939 (AB 939), as amended (Section 40000 et seq. of the PRC). The technology suppliers vetted through the County's evaluation process have the potential to achieve diversion rates ranging from approximately 87 percent to 100 percent by the weight of the waste received, thus, representing a realistic potential to achieve the State's recycling mandates and Zero Waste goals.

According to a former CIWMB report, as of March 2005, there were approximately 130 operating conversion technology facilities utilizing MSW as a feedstock in Europe and Japan. Since that time commercial facilities have been developed in Australia and Canada and are currently in operation. Many jurisdictions throughout the United States are moving forward with further evaluation of these technologies through research, demonstration projects, and full-scale commercial facilities.

Jurisdictions must carefully weigh specific issues associated with developing conversion technologies when considering it as a part of their solid waste management strategies. Most of the issues with conversion technologies can be separated into five categories: regulatory, environmental, social, technical, and economic.

Because of regulatory uncertainty in the United States, most of the conversion technologies available have yet to be permitted to process MSW. Not only do the limited regulations available differ between the state and federal levels, but they are often based on technically inaccurate definitions.

Public perception is an important aspect in developing these technologies in the United States. Even though these technology facilities are operating in various parts of the world, they are still new to the United States; thus, making it vital that jurisdictions interested in developing a facility provide public education regarding public health and safety, environmental impacts, and the specific difference from existing full combustion processes.

TABLE 5-1: Comparison of Conversion Technology Systems

Category	Type	Typical Temperature Range °F (°C)	Typical Feedstock and Methods / Processes	By-Products and Environmental Controls	Benefits / Advantages and Challenges
Mechanical[2]	Autoclave	270 °F to 290°F	Feedstock: Mixed municipal solid waste (MSW), biosolids, and medical waste. Method/Process: Feedstock is fed into an enclosed vessel where it is heated to around 270-290°F. Moisture in the vessel is converted to steam, and the solid material is reduced in volume. Remaining materials can be used as feedstock in a thermal or biological conversion technology process. Additional recyclables are recoverable through this process.	Byproducts: Additional recyclable materials can be extracted from the waste stream. Environmental Controls: High pathogen and virus kill rate. Residual material is generally benign following the autoclave process and can be disposed or converted.	Benefits: This process is an established process and is used to sterilize medical waste prior to disposal. Challenges: This process is not complete and must be used in connection with a secondary process.
Thermal	Pyrolysis	750° (399°) to 1650° (899°)	Feedstock: Any organic or thermally degradable materials. Municipal solid waste (MSW) acceptable if separation of non-thermally degraded material included, and drying material. Method/Process: Because most organic substances are thermally unstable, they can, upon heating in an oxygen-free atmosphere, be broken down into gaseous, liquid, and reduced solid components. Pyrolysis systems typically include kiln type structures that use external heat to process solid waste – there are no flames applied directly to the solid waste in this process.	Byproducts: Carbon char, silica, slag, ash, metals, non-thermally degradable material, tar, and viscous material Environmental Controls: Syngas cleaned through use of a boiler, scrubbers, low-NOx burners, and activated carbon injection. All syngas cleaning will provide a clean burning syngas for power generation per South Coast Air Quality Management District (SCAQMD) acceptable limits.	This process typically produces the highest amount of energy per ton of feedstock. No direct burning in oxygen starved atmosphere. Carbon char produced can be used to produce diesel fuel for vehicles. Other byproducts may be used in a number of ways including road base and construction material.
Thermal	Gasification	750° (399°) to 2500°(1371°)	Feedstock: Any organic or thermally degradable materials. MSW acceptable if significant separation and drying included. Byproducts of pyrolysis process. Method/Process: The process of partial oxidation in which a fuel is deliberately combusted with less than the exact amount of oxygen (or air) needed for complete oxidation.	Byproducts: Carbon char, silica, slag, ash, and metals. Environmental Controls: Pre-cleaning of the syngas is necessary prior to being utilized for production of chemicals, or as a fuel for gas turbines or reciprocating engines, which require clean fuels to minimize corrosion and emissions.	This process typically produces high amounts of energy per ton of feedstock, with the least amount of solid residuals. Produces clean syngas that can then be converted into chemicals or power generation through an internal combustion (IC) engine or gas turbine.
Thermal	Fixed/ Fluidized Bed Gasification	1400° (760°) to 2500° (1371°)	Feedstock: Any organic or thermally degradable materials. MSW acceptable if preprocessed to separate significantly large items, shredded, and sorting. Method/Process: Thermally decompose organic matter in a minimal oxygen atmosphere in order to produce syngas, combustible liquids, chars, and slag material.	Byproducts: Carbon char, silica, slag, ash, and metals. Environmental Controls: The gasification process has no outlet or stack. Pre-cleaning of the syngas is necessary prior to being utilized for production of chemicals, or as a fuel for gas turbines or reciprocating engines, which require clean fuels to minimize corrosion and emissions.	Produce clean syngas that can then be converted into chemicals or power generation through an internal combustion (IC) engine or gas turbine. Fixed bed technology allows for larger items of MSW to be thermally processed, along with less preprocessing of feedstock material. Fluidized bed technology allows for most solid waste to be processed, however, larger bulky items are not fully processed.
Thermal	Plasma Arc Gasification	Greater than 7000° (3871°)	Feedstock: Any organic or thermally degradable materials. MSW acceptable if preprocessed to separate significantly large items, shredded, and sorting. Method/Process: Hot ionized gas (plasma) is used to heat air or oxygen to high temperatures typically in excess of 7,000°F (3,871°C) and the resulting plasma is used to treat feedstock.	Byproducts: Carbon conversion, molten ash, slag, and metals. Environmental Controls: Air emissions are a major environmental issue to be addressed. Contaminants are removed from the syngas and/or from the flue gases prior to being exhausted from a stack.	Volume of syngas produced is lower than the volume of flue gases formed in the combustion of MSW in a facility. Syngas costs less to treat due to smaller volume. Syngas is more homogeneous and cleaner-burning fuel than MSW.

Notes:

1 Source: URS, Conversion Technology Evaluation Report for the County of Los Angeles, August 18, 2005.

2 Conversion technologies may include mechanical processes, but only when combined with a secondary conversion process.

TABLE 5-1:
Comparison of Conversion Technology Systems

TABLE 5-1: Comparison of Conversion Technology Systems (Cont.)

Category	Type	Typical Temperature Range °F (°C)	Typical Feedstock and Methods / Processes	By-Products and Environmental Controls	Benefits / Advantages and Challenges
Biological	Anaerobic Digestion	Not Applicable	Feedstock: Any biodegradable organics; MSW acceptable if pre-processed in the form of separation of metals, plastic, and non-biodegradable residues. Method/Process: Hydrolysis, acidification, and production of biogas are the main components for anaerobic digestion. Hydrolysis is the process of breaking chemical bonds of larger molecules into smaller molecules. Acidification is the subsequent process that degrades the smaller molecules into acids, hydrogen gas, and carbon dioxide.	Byproducts: Acids, hydrogen gas, carbon dioxide, biogas, liquid and solid fertilizer, and compost. Environmental Controls: Methane, carbon dioxide, odor may be managed by enclosing area and blowers.	Large amounts of methane and carbon dioxide generated may be used for power generation.
Biological	Anaerobic Digestion	Not Applicable	Feedstock: Food waste, agricultural waste, and sewage biosolids. Method/Process: Oxygen-dependant microorganisms degrade solid waste. Aerobic microorganisms in the reactor oxidize biodegradable material and produce large amounts of heat.	Byproducts: Residue processed to produce liquid and solid fertilizers. This process is different from anaerobic digestion in that no fuel is produced. Environmental Controls: Contaminants from leachate and gases produced are captured and not released into adjacent area.	Aerobic microorganisms in the reactor oxidize biodegradable material and produce large amounts of heat.
Chemical	Acid Hydrolysis	Not Applicable	Feedstock: Lignocellulosics, paper, green waste, agricultural, wood, yard waste, and vegetal biomass. Method/Process: Process of breaking the chemical bonds of cellulose-based materials and fermenting the sugar solution byproduct into ethanol. The feedstock is fed into a hydrolysis reactor and the liquid effluent from the reactor is fermented and distilled into 99% ethanol.	Byproducts: Carbon dioxide produced may be used for non-food industrial applications. Lignin and other residue provided may be used for compost, gasification, combustion, or landfilling purposes. Environmental Controls: Due to the dryers, furnaces, fermentation units, boilers, and handling of hazardous chemical particulates and dangerous compounds must be taken care of.	Process may be fully enclosed to minimize odor and provide dust control. Produces fuel grade 99% ethanol.
Chemical	Anaerobic Fermentation	Not Applicable	Feedstock: Organic material. Method/Process: Process which degrades organic material without oxygen.	Byproducts: Compost, organic acids, ammonia, methane gas, and small amounts of carbon dioxide. The energy produced by fermentation is contained in the methane and carbon dioxide produced. The energy released may be used as a fuel for turbine engines to generate power. Environmental Controls: Emission controls , minimizing nuisances associated with MSW, and handling of hazardous chemicals.	Compost produced by this process is pathogen free due to the unfavorable oxygen-deprived environment. Resultant temperatures from the anaerobic reactions are only a minimal pathogen deterrent.
Combination/ Hybrid	Thermal Depolymerization	Not Applicable	Feedstock: All organics or biodegradable materials, including animal or agricultural waste. Method/Process: Feedstock is fed into a reaction chamber where it is heated to around 482 °F (250°C) and subjected to 600 psi (4 MPa) for approximately 15 minutes, after which the pressure is rapidly released to boil off most of the water.	Byproducts: Oil, water, and fertilizer Environmental Controls: Most processed water is recycled. Vacuum/recompression system to be utilized to minimize wastewater discharge. Tipping hall contains an odor control system.	Essentially 100% diversion rate for processed MRF residuals. Direct products from byproducts are fuel, residue for fertilizer, biogas, power generation, and carbon.

TABLE 5-1:
Comparison of Conversion Technology Systems

Feedstock characteristics, process integration, and emission controls, among others, are technical issues that must be considered. MSW is a heterogeneous feedstock that requires a robust technology to effectively process the feedstock.

Unlike other parts of the world, Southern California still is able to provide landfill capacity at a relatively low price. The tipping fees in the Los Angeles County range approximately between $30 and $62 per ton. Because of this, conversion technologies have not been cost competitive in the County. However, it is anticipated that following the closure of the Puente Hills Landfill in 2013, tipping fees will ramp up, resulting in a direct cost comparison between conversion technologies and landfill disposal.

Some of the technologies discussed below are in the construction and operational stages for 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 may not be ready for large-scale commercial operation to manage a significant portion of solid waste generated in the County within the current planning period. Nevertheless, conversion technologies should be continually evaluated so that the County may manage a significant share of its solid waste in the future.

The thermal, chemical, and biological conversion technologies discussed in the Phase I Conversion Technology Evaluation Report (CTER) will be further explained in the following sections. To simplify discussion of these technologies, the CTER is incorporated by reference. However, it should be noted that future revisions to the CT Phase I or Phase II Reports do not constitute revisions to the CSE. Therefore, the Reports will not be included as an Appendix within the CSE.

For additional and more detailed information on conversion technology systems, see Flowchart 5-1, and **Tables 5-1** and **5-2** of this Chapter; and the Phase I Report.

TABLE 5-2: Conversion / Recovery Technology Comparison Table[1]

Category	Conversion Technology	Municipal Solid Waste Component Processed	Energy Efficiency	Products (Molar %)	Scale - Commercialization (Energy Output) in Megawatts (MW)
Thermal	Partial oxidation gasification air-feed	All organics low moisture <50% wet basis depending on reactor type.	75% (cold gas)	50% N_2 29% CO 15% H_2 3% CO_2 3% CH_4	0.5 to 5 MW
Thermal	Partial oxidation gasification oxygen-feed	All organics low moisture <50% wet basis depending on reactor type.	90% (cold gas)	40% H_2 30% CO_2 18% CO 9% CH_4 1% N_2	5 to 150 MW
Thermal	Indirectly fired gasification	All organics high moisture or dry.	85% (cold gas)	59% H_2 15% CO 14% CH_4 9% CO_2 3% N_2	10 to 25 MW
Thermal	Hydro-gasification with steam pyrolysis	All organics high moisture or dry.	90% (cold gas)	49 % CH_4 24 % H_2 11 % CO 6% CO_2	Pre-commercial
Thermal	Indirectly fired Pyrolysis with drier and gasifier	All organics high moisture or dry.	65% (cold gas)	40% CO_2 32% H_2 15% HCs 7% CO 5% H_2S	0.5 to 5 MW
Thermal	Indirectly fired Pyrolysis with drier	All organics high moisture or dry.	55% (cold gas)	36% CO_2 36% HCs 19% H_2 5% CO 3% H_2S	0.5 to 2 MW
Biological	Anaerobic Digestion	Biodegradable Components.	30-60% (cold gas)	60-40% CO_2 40-60% CH_4	0.1 to 10 MW
Chemical	Anaerobic Fermentation	Biodegradable Components.	30-70% (liquid)	Ethanol	0.1 to 10 MW
Biological	Aerobic Digestion (Composting)	Biodegradable Components.	Not Applicable	Soil amendment	Not Applicable

Notes

1. Source: Evaluation of Conversion Technology Processes and Products, University of California, Riverside and University of California, Davis.

TABLE 5-2:
Conversion / Recovery Technology Comparison Table

5.7.1 Thermal Conversion Processes

Thermal Conversion Process involves the use of heat as the primary mechanism for converting solid waste into another form such as fuel or other chemicals. Thermal Conversion Process utilizes biomass or other solid waste such as tires, plastics, sludge, municipal solid waste, paper, etc. as feedstocks. Thermal processing involves thermal degrading of solid waste through **exothermic** or **endothermic** reactions in an oxygen-free or oxygen-reduced environment. Full combustion of solid waste to the state of ash does not occur as a phase of the thermal conversion processes.

There are two major types of thermal conversion processes of solid waste, namely, pyrolysis systems and gasification systems.

For additional and more detailed information on thermal conversion processes, see Flowchart 5-1 and Tables 5-1 and 5-2 of this Chapter; and Section 1.1 of the Phase I Report.

5.7.1.1 Biomass Conversion (Non-Combustion)

In accordance with the current state law, PRC 40106 (a), biomass conversion is defined to include a non-combustion thermal conversion process for the production of heat, fuels, or electricity, on the following materials, when separated from other solid waste: (1) agricultural crop residues; (2) bark, lawn, yard, and garden clippings; (3) leaves, silvicultural residue, and tree and brush pruning; (4) wood, wood chips, and wood waste; (5) non-recyclable pulp or non-recyclable paper materials.

Pyrolysis Systems

Pyrolysis is the thermal processing/degradation of organic waste in the absence of free oxygen to produce a carbonaceous char, oils, and combustible gases. 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 reduced solid components. Pyrolysis systems typically include kiln-type structures that use external heat to process solid waste – there are no flames applied directly to the solid waste in this process.

Pyrolysis systems can process a wide range of carbon-based materials; however, they operate most efficiently and produce the highest quality byproducts when the feedstock is homogeneous. Since MSW is heterogeneous, if used as a feedstock it must first undergo pre-processing, shredding, and/or drying to remove inorganic materials and enhance uniformity.

During a pyrolysis operation, MSW is shredded and fed to a reactor vessel, where it is heated to temperatures ranging from 750°F to 1650°F (399°C to 2566°C) producing the following components:

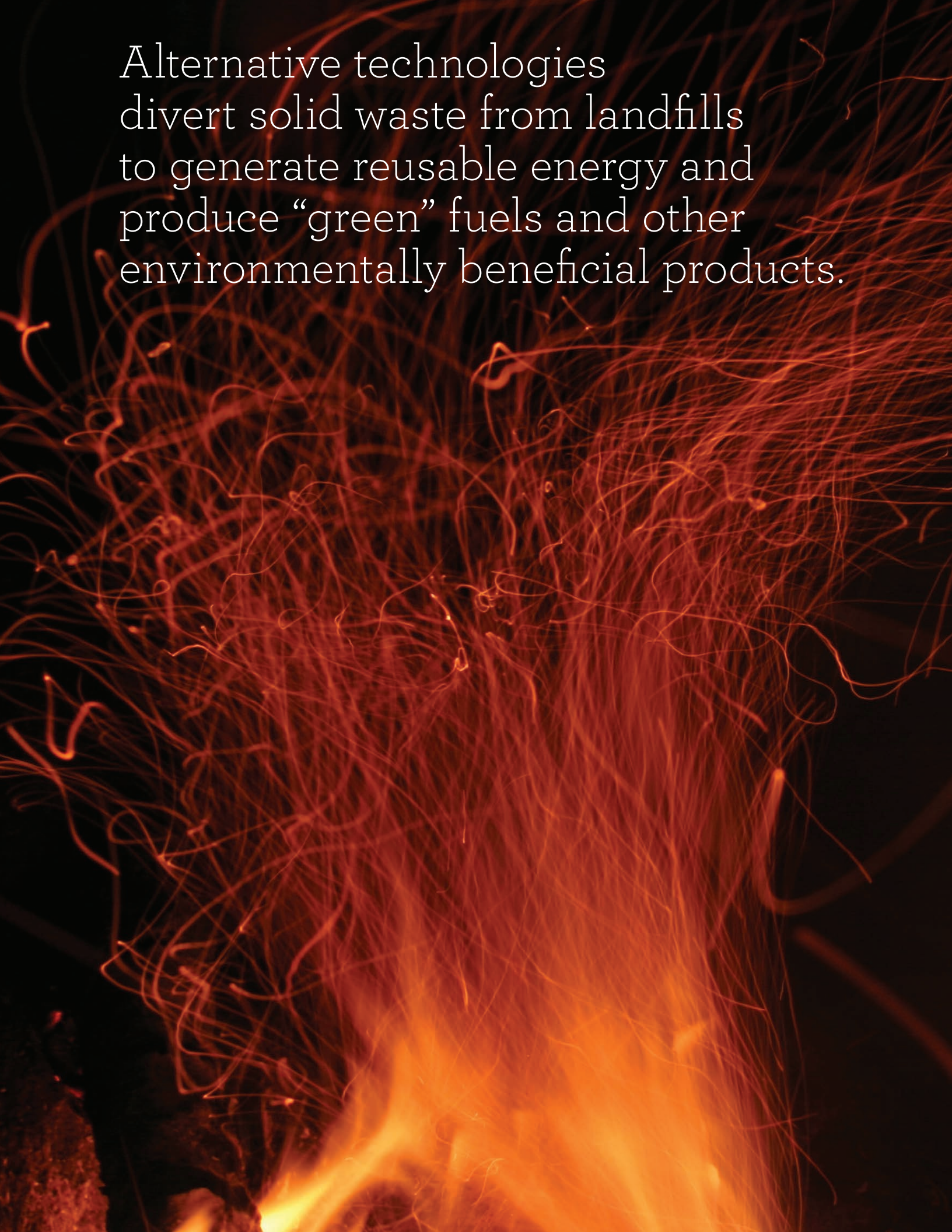
- Syngas component - containing primarily hydrogen (H2), methane (CH4), carbon monoxide (CO), carbon dioxide (CO2), and various other gases, depending on the organic characteristics of the material being processed.
- Produced by Liquid component (Pyrolysis oil) - Low temperature pyrolysis and consisting 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.
- Char or ash component consisting of almost pure carbon plus any inert material originally present in the solid waste.

The gas and oil may either be used to generate power or processed further and sold as fuel.

Key Terms

Exothermic
Refers to a process or reaction that releases energy usually in the form of heat, but also in form of light (e.g., a spark, flame, or explosion), electricity (e.g., a battery), or sound.

Endothermic
Refers to a process or reaction that absorbs energy in the form of heat.



Alternative technologies
divert solid waste from landfills
to generate reusable energy and
produce “green” fuels and other
environmentally beneficial products.

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 that 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 are minimal.

In the United States, only a few small demonstration and commercial pyrolysis facilities have been constructed and operated; most commercial facilities have shut down due to poor end product quality.

For additional and more detailed information on Pyrolysis systems, see Flowchart 5-1, Table 5-1 and 5-2, and Figure 5-1 of this Chapter; and Appendix A and Section 1.1.2 of the Phase I Report (http://dpw.lacounty.gov/epd/SoCalConversion/pdfs/CT_Eval_Report.pdf).

Gasification Systems

Gasification refers to a thermal reaction with no amount of air or oxygen for reaction of all hydrocarbons (compounds of carbon, hydrogen, and oxygen molecules) to carbon dioxide (CO2) and water (H2O). Gasification is the conversion at higher temperatures of feedstock into combustible gases, using a limited amount of air. Additionally, gasification is a general term used to describe the process of partial oxidation in which a fuel is deliberately combusted with less than the exact amount of oxygen (or air) needed for complete oxidation.

Gasification effectively reduces the volume of solid waste and maximizes the recovery of energy. There are three major types of gasification systems: fixed bed gasification systems, fluidized bed gasification systems, and plasma arc gasification systems. Gasification temperatures may range from 750°F to 12,000°F (399°C to 5538°C), depending on the type of gasification system used. Typically, the feedstock used is organic or thermally degradable and usually requires preprocessing and drying. Essentially, the process involves partial oxidation 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 in order to produce power. Benefits of using a gasification system to manage solid waste are increased levels of feedstock degradation, ability to accept organic and non-organic material for degradation, and production of highly marketable products such as fuel, road base material, and other chemicals.

For additional and more detailed information on specific gasification systems and lists of various gasification technology vendors, see Flowchart 5-1, Tables 5-1 and 5-2, and Figure 1-3 of this Chapter; and Section 1.1.3 of the Phase I Report.

The following is a brief description of the three basic types of gasification systems: fixed bed gasification systems, fluidized bed gasification systems, and plasma arc gasification systems.

Vertical Fixed Bed Gasification System

The vertical fixed bed gasifier is characterized by the upward orientation of the gasification machinery and stationary or moving grates within the system.

This type of reactor is sensitive to the mechanical characteristics of the fuel thus requiring a uniform, homogenous fuel, such as densified RDF. The end products of the process are primarily low-BTU gas and char.

These 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.

For additional and more detailed information on vertical fixed bed gasification systems, see Flowchart 5-1 and Table 5-1 of this Chapter; and Section 1.1.3.1 of the Phase I Report.

Horizontal Fixed Bed Gasification System

Horizontal fixed bed gasification systems are characterized by horizontally configured moving grates or plates that introduce feedstock into the horizontally-oriented gasification machinery.

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 oxidation under controlled conditions, producing a low-BTU gas, which then flows into the secondary combustion chamber. In the secondary chamber, waste is combusted with excess air that produces high-temperature of 1,200 oF to 1,600 oF (649°C to 871°C) 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.

Horizontal fixed bed gasifiers are commercially available from several manufacturers in standard sizes ranging from .05 to 4.2 tons/hour in capacity.

For additional and more detailed information on horizontal fixed bed gasification systems, see Flowchart 5-1 and Table 5-1 of this Chapter; and Section 1.1.3.1 of the Phase I Report.

Fluidized Bed Gasification

Fluidized bed gasification 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 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 gasification 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 feedstock. In operation, auxiliary fuel (natural gas or fuel oil) is used to bring the bed up to operating temperature of 1,450°F to 1,750°F (788°C to 954°C).

With minimal modifications, a fluidized bed combustion system can be operated as a fluidized bed gasification system. The major difference between combustion and gasification systems is the method of fuel media decomposition. Fluidized bed combustion systems destroy fuel media through full oxidation including flames or combustion, thus, producing minimal amounts of char and minimal amounts of syngas.

Fluidized bed gasification systems thermally decompose organic matter in a minimal oxygen atmosphere in order to produce syngas, combustible liquids, chars, and slag material. Several pilot-scale tests have been conducted with solid waste as fuel.

For additional and more detailed information on fluidized bed gasification systems, see Flowchart 5-1 and Table 5-1 of this Chapter; and Section 1.1.3.1 of the Phase I Report.

Plasma Arc Gasification System

Plasma gasification processes occur in a closed, pressurized reactor and the air/oxygen introduced is controlled for promotion of gasification reactions. Waste feedstock is thermally processed until it is converted into solid inert matter with a slag-like appearance and metal shot.

In a plasma arc gasification system, hot ionized gas (plasma) is used to heat air or oxygen to high temperatures typically in excess of 7,000°F (3,871°C) and the resulting plasma is used to treat feedstock, which can include any organic or thermally degradable materials, including MSW.

Byproducts of plasma gasification are similar to those produced in high-temperature gasification. These high temperatures allow for nearly 100 percent carbon conversion.

For additional and more detailed information regarding plasma arc gasification systems, see Flowchart 5-1, Table 5-1, and Figure 1-5 of this Chapter; and Section 1.1.4 of the Phase I Report.

5.7.2 Biological Conversion Process

Biological conversion processes are designed for biodegradable organics only and require an extensive amount of pre-processing.

Typically, the major end product is compost. The feedstock includes food waste, agricultural waste, biosolids, and various other organics and biodegradable materials.

For additional and more detailed information on biological conversion processes, see Table 5-1 of this Chapter, and Section 1.2 of the Phase I Report.

5.7.2.1 Anaerobic Digestion Process

Anaerobic digestion is a process in which biodegradable organics are converted with little or no oxygen by anaerobic microorganisms into digestate and a biogas rich methane and carbon dioxide. A typical anaerobic digestion process for MSW begins with pre-processing in the form of separation of metals, plastic, and non-biodegradable residues. Anaerobic digestion employs a method that most commonly uses liquid and semi-liquid slurries such as animal waste.

Hydrolysis, acidogenesis, acetogenesis, and methanogenesis (production of biogas) are the components for anaerobic digestion. Hydrolysis is the process of breaking chemical bonds of larger molecules into smaller molecules. Acidogenesis and acetogenesis are the subsequent processes that degrade the smaller molecules into acids, hydrogen gas, and carbon dioxide.

The products from these processes are introduced to methane-producing bacteria (methanogens), which then produce methane rich biogas. Typical composition of the resulting biogas is 50 percent to 70 percent methane with medium BTU values. The main advantage of anaerobic digestion is the use of “wet” waste, which is problematic for all other forms of digestion.

For additional and more detailed information on anaerobic digestion processes, see Flowchart 5-1, Tables 5-1 and 5-2, and Figure 1-6 of this Chapter; and Section 1.2.2 of the Phase I Report.

Fermentation Process

Fermentation refers to a process by which organic compounds are broken down by microorganisms to yield hydrogen, alcohols, and carbon dioxide. Fermentation occurs during times of low oxygen supply; therefore, it is known as a type of anaerobic digestion.

5.7.2.2 Aerobic Digestion Process

Aerobic digestion is a biological conversion process in which oxygen-dependent microorganisms degrade solid waste. Aerobic digestion feedstock must contain homogeneous biodegradable organic material. Typical feedstock includes biosolids, food, and agricultural waste.

Aerobic microorganisms in the reactor oxidize biodegradable material and produce large amounts of heat. Renewable energy in the form of synthesized biogas and ethanol are not products of this type of process. The aerobic digestion process predominantly produces compost, as well as solid and liquid fertilizers.

For additional and more detailed information on aerobic digestion processes, see Flowchart 5-1 and Tables 5-1 and 5-2 of this Chapter; and Section 1.2.4.3 of the Phase I Report.

5.7.3 Chemical Conversion Processes

Chemical conversion processes are conversion technologies that are designed to change the chemical structure of any organic fuel media. While chemical conversion processes are designed to change organic (biodegradable or inert) fuel, biological conversion processes are designed to process only biodegradable organic fuel.

For additional and more detailed information on Chemical Conversion processes, see Flowchart 5-1 and Table 5-1 of this Chapter; and Section 1.2.3 of the Phase I Report.

5.7.3.1 Acid Hydrolysis

Acid hydrolysis is the process of breaking the chemical bonds of cellulose-based materials and fermenting the sugar solution byproduct into ethanol. (See Figure 1-7 of the Phase I Report.)

This hydrolysis of cellulose-bonds within fibrous vegetable-type matter is specifically called lignocellulosics. Green waste, agricultural waste, and paper waste are feedstock to be fed into a hydrolysis reactor and the liquid effluent from the reactor fermented and distilled into 99 percent ethanol.

Typical byproducts from this hydrolysis process are carbon dioxide and lignin- type residue. Carbon dioxide produced is a high enough quality to be used for non-food industrial applications. Lignin and other residue may be used for compost, gasification, and combustion purposes, or could be landfilled.

For additional and more detailed information on acid hydrolysis, see Flowchart 5-1, Table 5-1, and **Figure 5-2** of this Chapter; and Section 1.2.3 of the Phase I Report.

BlueFire Renewables

BlueFire Renewables, Inc. (BlueFire) was established to use a Concentrated Acid Hydrolysis patented process for the conversion of cellulosic waste materials into renewable fuels and other products. BlueFire uses this patented process with the goal of converting widely available, inexpensive, organic materials such as agricultural residues, high-content biomass crops, wood residues, and cellulose in MSW into valuable and renewable end products.

BlueFire's use of the patented process positions it as the only viable, world-wide cellulose-to-ethanol company with demonstrated production experience with ethanol from wood wastes, urban trash (post-sorted MSW), rice and wheat straws, and other agricultural residues.

5.7.3.2 Anaerobic Fermentation

Anaerobic fermentation is a process that degrades organic material without oxygen. Organic feedstock is degraded by living anaerobic organisms and produces organic acids, ammonia, methane gas, and small amounts of carbon dioxide. Anaerobic fermentation is different from anaerobic digestion, because fermentation is specifically an anaerobic process that converts glucose and other simple sugar molecules into simpler compounds. Digestion may be either aerobic or anaerobic depending upon the type of bacteria used for decomposition.

The energy produced by the anaerobic fermentation is contained in the methane and carbon dioxide produced. The energy released may be used as a fuel for turbine engines to generate power. Compost produced by this process is pathogen free due to the unfavorable oxygen-deprived environment. Resultant temperatures of 140°F to 160°F (60°C to 71°C) from the anaerobic reactions are only a minimal pathogen deterrent.

For additional and more detailed information on anaerobic fermentation, see Flowchart 5-1 and Tables 5-1 and 5-2 of this Chapter.

5.7.4 Combination Conversion Processes

Combination conversion processes are the integration of two or more conversion technology processes.

According to Section 4.0 of the Phase I Report, if green fuel production becomes an objective of the proposed conversion facilities, the syngas or biogas produced by the thermal or bioconversion technologies can be used to produce green fuel. In this case, a combination of thermal, chemical, and/or bioconversion technologies may be required, and such a combination can be evaluated in the next phase of the siting project.

There are many emerging conversion technologies that have not yet been introduced on a full scale. As a result, these types of technologies are continuously being created and studied in order to find their potential solid waste applications. Due to the numerous vendors and varying levels of development, the CSE will dedicate minimal discussion to a national example of such technology.

For additional and more detailed information on Combination Conversion processes, see Flowchart 5-1 and Table 5-1 of this Chapter; and Section 4.0 of the Phase I Report.

5.7.4.1 Thermal Depolymerization (TDP)

Thermal depolymerization is a proprietary process in which the solid waste material hydrocarbons are broken into smaller chemical hydrocarbon chains.

Typical feedstock for this process is animal or agricultural waste. Feedstock is fed into a reaction chamber where it is heated to around 482 °F (250°C) and subjected to 600 psi (4 MPa) for approximately 15 minutes, after which the pressure is rapidly released to boil off most of the water.

The result is a mix of crude hydrocarbons and solid minerals, which are separated out. The hydrocarbons are sent to a second-stage reactor where they are heated to 932 °F (500 °C), further breaking down the longer chains, and the resulting mix of hydrocarbons is then distilled in a manner similar to conventional oil refining.

Currently, there is only one full scale facility (a 250 ton/day facility located in Carthage, Missouri) that processes a highly specific feedstock, namely turkey waste. Byproducts from this process include oil, water, and carbon solids.

This plant has not currently been successful in using MSW or RDF as a feedstock.

For additional and more detailed information on thermal depolymerization, see Flowchart 5-1 and Table 5-1 of this Chapter; and Section 1.1.5 of the Phase I Report.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5.8 REGULATORY, TECHNICAL, ENVIRONMENTAL, ECONOMIC, AND SOCIAL CHALLENGES

5.8.1 Regulatory Issues

Due to regulatory uncertainty in California and the fact that no commercial alternative technology facility similar to those being evaluated by the County have been developed in the State to set regulatory precedent, the permitting process for conversion and alternative technology facilities is expected to be challenging. Section 7 of the Phase II Report estimates that the permits would potentially include, but are not limited to, the following:

- New or revised Land Use Permit from the host jurisdiction Planning Department, including compliance with the California Environmental Quality Act
- Wastewater Discharge Permit
- Air Quality Permits
- New or revised Solid Waste Facility Permit from the Local Enforcement Agency and CalRecycle
- Amendment to the jurisdiction's Non-Disposal Facility Element or Siting Element
- New or revised Stormwater Permits

5.8.1.1 Senate Bill 498 – Conversion Technology

Governor Brown signed into law Senate Bill 498 (SB 498) on September 28, 2014. SB 498, authored by Senator Ricardo Lara and sponsored by Los Angeles County and the California State Association of Counties, revises the definition of "biomass conversion" to include non-combustion thermal technologies.

Biomass waste is organic material such as wood, lawn and garden clippings, agricultural waste, leaves, tree pruning as well as non-recyclable paper that has been separated from other solid waste. Under the previous definition, biomass conversion was limited to controlled combustion if used for the production of electricity or heat. While limited in scope, SB 498 is a major victory for conversion technology proponents, as it is California's first successful legislative effort to include conversion technologies as a waste management option for jurisdictions.

SB 498 will create a pathway for low-carbon fuels to be utilized from biomass waste. Existing biomass conversion facilities will be able to update their facilities with more efficient and environmentally friendly processes. Moreover, the utilization of conversion technologies will provide jurisdictions with increased flexibility to process biomass waste to produce green energy. Without increased options, biomass waste may need to be transported to facilities hundreds of miles away, which is economically and environmentally costly.

5.8.1.2 Assembly Bill 1126 – Engineered Municipal Solid Waste

Assembly Bill 1126 (AB 1126, Chapter 411 of the 2013 State Statutes), which was signed by Governor Brown on September 28, 2013, defines the terms "**engineered municipal solid waste (EMSW)** conversion" and "**EMSW facility**" as a new type of solid waste disposal facility, thereby requiring conforming changes to existing definitions with regard to those operations and facilities.

EMSW conversion is very broadly defined as the conversion of solid waste through a process that meets certain requirements (see Section 5.2.14). An EMSW conversion process could include combustion, incineration, or any non-combustion conversion technology. AB 1126 stipulates that solid waste processed through an EMSW facility would be considered disposal, and the energy generated by such a facility would not be considered renewable. AB 1126 additionally excludes EMSW conversion from the definition of transformation and allows a **transformation facility** that meets specified requirements relating to EMSW conversion to elect to be considered an EMSW facility.

Key Terms

Engineered Municipal Solid Waste Conversion or EMSW Conversion
Defined in PRC, Section 40131.2 (a) as "the conversion of solid waste through a process that meets all of the following requirements: (1) The waste to be converted is beneficial and effective in that it replaces or supplements the use of fossil fuels; (2) The waste to be converted, the resulting ash, and any other products of conversion do not meet the criteria or guidelines for the identification of a hazardous waste adopted by the Department of Toxic Substances Control pursuant to Section 25141 of the Health and Safety Code; (3) The conversion is efficient and maximizes the net calorific value and burn rate of the waste; (4) the waste to be converted contains less than 25 percent moisture and less than 25 percent non-combustible waste; (5) The waste received at the facility for conversion is handled in compliance with the requirements for the handling of solid waste imposed pursuant to this division, and no more than a seven-day supply of that waste, based on the throughput capacity of the operation or facility, is stored at the facility at any one time; (6) No more than 500 tons per day of waste is converted at the facility where the operation takes place; (7) The waste has an energy content equal to, or greater than, 5,000 BTU per pound;" and "(8) The waste to be converted is mechanically processed at a transfer or processing station to reduce the fraction of chlorinated plastics and materials."

AB 1126 would also require each county Countywide Siting Element to include a description of the areas to be used for the development of EMSW conversion facilities concurrent and consistent with the development and implementation of the county and city source reduction and recycling elements.

Any revision to a countywide siting element to provide for an EMSW facility is only required to be approved by the city in which it is located, or if the EMSW is not located in a city, by the county.

5.8.2 Technical Issues

As mentioned previously, many conversion technology processes are designed to perform at peak performance when homogeneous feedstock is used. MSW poses a challenge as it varies in the quality and makeup from day to day and from location to location. To create a more uniform, homogenous, and reliable feedstock, preprocessing techniques such as drying, shredding, and/or mixing may be employed. Removal of bulky items and inert materials also increase the uniformity of the feedstock.

5.8.3 Environmental Issues

To become a viable solid waste management option in California it is critical that alternative technology facilities do not negatively impact public health and safety. Alternative technology facilities must meet or exceed the State's strict environmental standards.

Initially, most environmental issues were focused on visible emissions. Then, the Clean Air Act and its amendments provided an impetus for the solid waste management industry to change from simple refractory enclosures and toward water wall boiler and combustion industry, and to the solid waste combustion market. In 1977, the pollutant "dioxin" emerged as a new issue. Emissions of acid gases-hydrochloric acid (HCl), sulfur dioxide (SO2), nitrogen oxides (NOX), and toxic elements also became of increasing concern. Other interests focused on ash production and disposal. 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.

Unlike other states California's air regulations for stationary sources are administered and enforced at the level of the local air pollution control district. Any conversion technology facility constructed in Orange County, or the urbanized areas of Los Angeles, San Bernardino, and Riverside Counties are subject to SCAQMD regulations, which are the most stringent permitting conditions in the State. (See **Chapter 6 ("Facility Siting Criteria")** for more information on the SCAQMD regulatory process.)

Key Terms

Engineered Municipal Solid Waste Conversion Facility or EMSW Facility
Defined in PRC, Section 40131.2 (b) as "a facility where municipal solid waste conversion that meets the requirements of PRC, Section 40131.2 (a) takes place" (see definition of engineered municipal solid waste conversion or EMSW Conversion).

Transformation Facility
Refers to a facility whose principal function is to convert, combust, or otherwise process solid waste by "incineration, pyrolysis, distillation, or biological conversion" for the purpose of volume reduction, synthetic fuel production, or energy recovery. Transformation facility does not include a composting, gasification, EMSW conversion, or biomass conversion facility.

In 2006, former Governor Arnold Schwarzenegger signed into law Assembly Bill 32 (AB 32), a critical piece of legislation that impacts every sector in California's economy including solid waste management. The Global Warming Solutions Act of 2006 requires California to reduce greenhouse gas emissions to 1990 levels by 2020, among other things (Nunez, Chapter 488, Statutes of 2006). As instructed by AB 32, the California Air Resources Board (CARB) developed a guidance document (the "Scoping Plan"), in 2009, that outlines specific reduction measures each industry must comply with. CARB adopted the first update to the Scoping Plan on May 22, 2014. The initial Scoping Plan adopted in 2009 included recommendations for landfill methane emission reductions and reduction in waste generation, both of which were implemented in subsequent regulations and legislation. The 2014 Scoping Plan includes a more comprehensive discussion of the waste management sector, including an expectation for the waste management sector as a whole to be "climate neutral" by 2020. It is likely that when conversion technology facilities become operational in California, they will be required to comply with these guidelines.

5.8.4 Economic Issues

Jurisdictions must evaluate total system costs, which typically include collection, transportation, processing, operating and capital investments, to determine the economic feasibility of developing a particular alternative technology facility.

The rate charged for each ton of solid waste received at a facility is a major factor to jurisdictions or entities evaluating the option of siting facilities that utilize alternative technologies. Tipping fees and revenue from the sale of energy and byproducts 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 potential additional costs if the waste stream fluctuates below the level needed to keep the plant running.

Due to current fiscal constraints, few local governments may be in a position to finance the development of a technology by a provider new to the United States and, therefore, need to rely on the private sector for their development. There may be government funding available for these projects because many alternative technology processes have the ability to produce a syngas that can be used to generate electricity or further refined to create biofuels. Many grants and low-interest loan opportunities for renewable energy-generating projects are emerging on both the State and Federal level as the government seeks to reduce the United States' dependence on foreign oil and increase its level of environmental stewardship.

5.8.5 Social Issues

The NIMBY (Not In My Backyard) and BANANA (Build Absolutely Nothing Anywhere Near Anyone) phenomena also create challenges to development of alternative technology facilities since it further constrains and engenders opposition to the locations where alternative technology facilities can be sited in the County.

Also, the possibility of misguided negative public perception of alternative technology facilities as incinerators creates additional public relation hurdles or obstacles to be overcome, without recognition of significant technological and air emissions control advancements many viable alternative technologies bring.

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6

Facility Siting Criteria

6.0 FACILITY SITING CRITERIA

6.1 PURPOSE

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 Class III landfills, inert waste landfills, and alternative technology facilities (e.g., conversion technology, transformation). These criteria are the most stringent standards developed for solid waste facilities in Los Angeles County (County). For the purposes of this Los Angeles County Countywide Siting Element (CSE), similar standards are proposed for alternative technology facilities (e.g., conversion technology), and other emerging technology facilities, pending clarification of the regulatory status of these facilities.

Also included in this Chapter is a description of actions to be taken by local jurisdictions to solicit public participation by affected communities, including, but not limited to, minority and low-income populations, to ensure their active awareness of the need as well as participation in the safe management of solid waste, in accordance with State Senate Bill (SB) 1542 (Escutia) (amending California Public Resources Code (PRC) Section 41701) and State Assembly Bill (AB) 1497 (Montanez) (amending PRC Section 44004).

The specific requirements for the content of this Chapter are drawn from California Code of Regulations (CCR), Title 14, Division 7, Chapter 9, Article 6.5, Section 18756; PRC Sections 41701 (e) and 44004 (h)(1), as amended; and discussed in Section 6.3 of this Chapter.

6.2 DEFINITIONS

Definitions of key terms used in this Chapter are included when referenced. For a more complete listing of acronyms and definitions, please refer to the List of Acronyms and Glossary of Terms at the beginning and end of this document, respectively.

6.3 SPECIFIC REQUIREMENTS

Key Terms

Environmental Justice
Defined in California Government Code Section 65040.12(e) as "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies."

CCR, Title 14, Section 18756 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) The CSE shall be approved by the county and the cities as described in PRC section 41721 (a). In accordance with PRC section 41721 (b), a siting element providing for an EMSW conversion facility is only required to be approved by the city in which it is located, or if the EMSW is not located in a city, by the county. The CSE shall include: a resolution from each jurisdiction approving or disapproving of the CSE or any amendment to the element; and a record of any jurisdiction failing to act upon the CSE.

(d) No solid waste disposal facility shall be established that does not satisfy the minimum criteria that are listed in the Siting Element pursuant to CCR Section 18756(a).

(e) 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 PRC.

PRC Section 41701(e) requires that each countywide siting element and revision thereto shall include the following:

- For countywide elements (or amendments thereto) submitted on or after January 1, 2003, a description of the actions taken by the city or county to solicit public participation by the affected communities including, but not limited to, minority and low-income populations.

  While SB 1542 (which enacted PRC Section 41701 (e)) does not prescribe the specific actions that must be taken in order to satisfy the above requirement, it does require CalRecycle to provide guidance on the types of actions that could be taken.

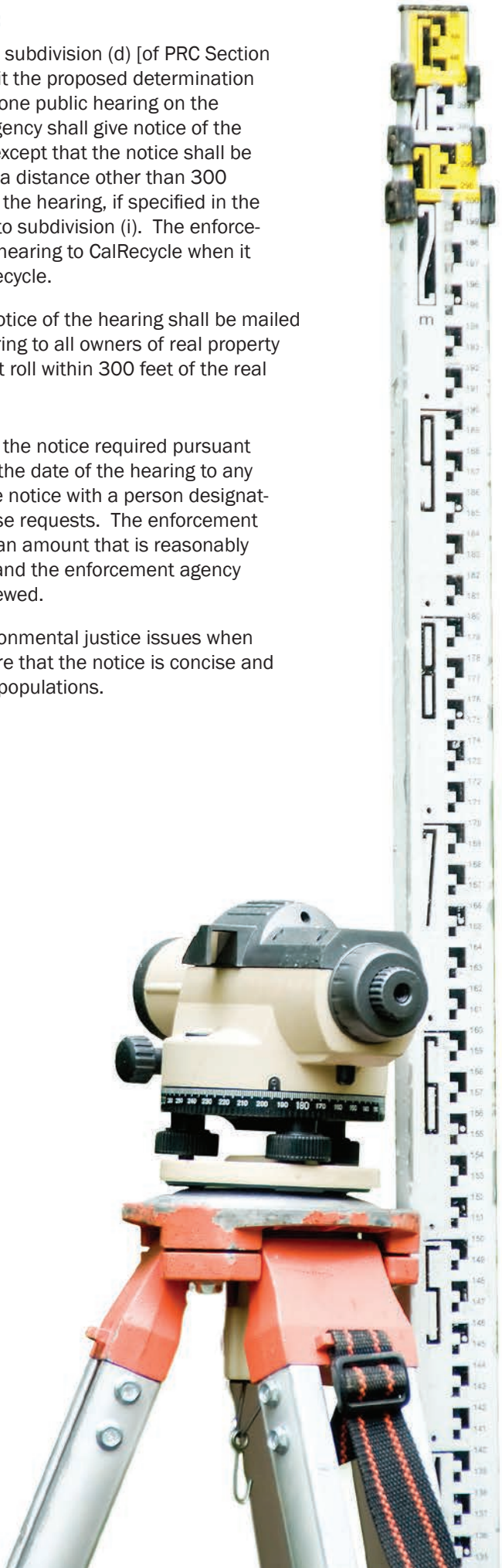
PRC Section 44004 (h) (1) requires the following:

(A) Before making its determination pursuant to subdivision (d) [of PRC Section 44004], the enforcement agency shall submit the proposed determination to CalRecycle for comment and hold at least one public hearing on the proposed determination. The enforcement agency shall give notice of the hearing pursuant to Section 65091 of CGC, except that the notice shall be provided to all owners of real property within a distance other than 300 feet of the real property that is the subject of the hearing, if specified in the regulations adopted by CalRecycle pursuant to subdivision (i). The enforcement agency shall also provide notice of the hearing to CalRecycle when it submits the proposed determination to CalRecycle.

[Pursuant to Section 65091 (a) (4) of CGC, notice of the hearing shall be mailed or delivered at least 10 days prior to the hearing to all owners of real property as shown on the latest equalized assessment roll within 300 feet of the real property that is the subject of the hearing.]

(B) The enforcement agency shall mail or deliver the notice required pursuant to subparagraph (a) at least 10 days prior to the date of the hearing to any person who has filed a written request for the notice with a person designated by the enforcement agency to receive these requests. The enforcement agency may charge a fee to the requester in an amount that is reasonably related to the costs of providing this service and the enforcement agency may require each request to be annually renewed.

(C) The enforcement agency shall consider environmental justice issues when preparing and distributing the notice to ensure that the notice is concise and understandable for limited-English-speaking populations.



6.4 SITING AND PERMITTING

6.4.1 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 on 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 the 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 **Attachment 6A**, provides guidance and primary selection constraints for siting proposed or expansion of the existing 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 **Attachment 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
- Ensure compliance with federal, state and local requirements

The siting criteria have been developed 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 controversies 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.

6.4.2 Permitting

6.4.2.1 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 (CEQA) of 1970 and the Permit Streamlining Act (PSA) of 1977.

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. PSA places time limits on 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), CalRecycle/appropriate Local Enforcement Agency (LEA), the RWQCB (Los Angeles and Lahontan Regions), the California Department of Fish and Wildlife (CDFW), the SCAQMD, Antelope Valley Air Quality Management District, and the Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force (Task Force). **Table 6B-1** (in **Attachment 6B**) lists regulatory agencies having jurisdictional control over solid waste disposal facilities in Los Angeles County. **Figure 6B-1** (also in **Attachment 6B**) delineates the jurisdictional boundaries for the Los Angeles and Lahontan Regional Water Quality Control Boards.

6.4.2.2 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, but are not limited to, the following:

- Fire
- Building
- Grading
- Plumbing
- Electrical
- Sewer
- Standard Urban Stormwater Mitigation Plan (SUSMP)
- 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.

Key Terms

Air Quality Management District (AQMD)
Refers to a group or portions of counties, or an individual county specified in law with authority to regulate stationary, indirect, and area sources of air pollution within the region and governed by a regional air pollution control board comprised mostly of elected officials from within the region.

6.4.2.3 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 6.6 (Permits). Section 6.6 discusses the regulatory overview, permitting requirements, and the administration process for discretionary permits listed below under the following issuing regulatory agencies:

- Local Jurisdiction's Planning Agency[1]
  - Land Use Permit (LUP)/Conditional Use Permit (CUP)
  - General Plan consistency
- **Air Quality Management Districts (AQMD)**
  - Permit to Construct
  - Permit to Operate
- California Regional Water Quality Control Boards (RWQCB)
  - Waste Discharge Requirements (WDRs)
  - Stormwater/National Pollutant Discharge Elimination System Permit (NPDES)
  - Standard Urban Stormwater Mitigation Plan (SUSMP)
- Local Enforcement Agency/ California Department of Resources Recycling and Recovery (CalRecycle)
  - Solid Waste Facility Permit (SWFP)
- Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force (Task Force)
  - Finding of Conformance (FOC) with the CSE/Countywide Integrated Waste Management Plan (CoIWMP)
- California Department of Fish and Wildlife (CDFW)
  - Lake and Streambed Alteration Agreement, when applicable
  - Incidental Take Permit
- United States Department of the Interior, National Park Service
- U. S. Army Corps of Engineers
  - Section 404 of Clean Water Act Permit

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. **Flowcharts 6-1** through **6-7** of this Chapter and **Flowchart 10-1** of **Chapter 10** provide an overview of the solid waste disposal facility permitting process.

1 The Planning Agency for Los Angeles County is Los Angeles County Department of Regional Planning; and the Planning Agency for a city may be the Planning Division or Department of that city.

6.5 PUBLIC PARTICIPATION AND ENVIRONMENTAL JUSTICE CONSIDERATIONS IN THE SITING AND PERMITTING PROCESS

6.5.1 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 and involvement, and to welcome public input into the decision-making process to better serve public needs.

Most citizens are familiar with well-publicized solid 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.

6.5.2 Public Participation

An effective public participation program, beginning at the earliest planning stages and continuing throughout the permitting process, is extremely important. An effective public participation program should allow for the expression of public concerns by all affected communities, including minority and low-income populations, 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 and described below:

- Public Information
- Public Education
- Community Relations
- Community Involvement
- Public Participation

6.5.2.1 Public Information

Public information is one component of 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. Information should be presented in English as well as other languages spoken by a significant portion of the affected communities.

6.5.2.2 Public Education

Public education consists of providing the information on specific subjects to the public by means of brochures, seminars/presentations, local schools, etc. The objective is to raise public awareness and stimulate thought and encourage public participation or involvement, if applicable. This process may or may not involve interaction between the two parties.

All jurisdictions are encouraged to:

- Develop community and culturally competent outreach processes and materials to reach underrepresented populations and utilize effective, non-traditional techniques, to capture issues and perspectives of the communities.
- Utilize informational tools, such as developing public participation handbooks, which guide communities through the permit process and provide accessible information about agency responsibility. Special attention should be paid to redesigning web resources to make information more accessible and meaningful to community leaders and members.

6.5.2.3 Community Relations

Community relations involve 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.

6.5.2.4 Community Involvement

Community involvement is the targeting of specific communities including, but not limited to, minorities and low-income populations 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.

Promoting the use of traditional/non-traditional methods to garner perceptions of agency-community relations should be encouraged, and the need for community-specific research to ascertain target community needs and issues should be stressed.

6.5.2.5 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 the project proponent, lead agency, and affected community.

6.5.3 Public Participation Programs

6.5.3.1 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 engage in 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 developer and operator. It is the responsibility of industry and government to provide the public with non-adversarial points of contact 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.

6.5.3.2 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 stakeholders, the second is plan development, and the 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 key components of a public involvement process are summarized below.

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 and potential recovery products;
- 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 including, but not limited to, minority and low-income populations, 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 the public's concerns. Possible participants to be considered are:

- General public, including minority and low-income populations
- 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 or special purpose citizen groups
- Community and civic associations
- Local religious groups
- Media, including editorial boards

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. Plan development should recognize 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.

Creating a mechanism for building confidence and trust and incorporating affected communities into longer-range strategic planning rather than only during controversial moments, can convince residents that they will not be engaged in continual facility-by-facility arguments and can help both communities and agencies move beyond facility-by-facility conflicts. Plan development should also include continued staff training on environmental justice issues, including organizing site tours with the community to learn firsthand about community's concern.

Below is a list of various techniques that can be employed to encourage understanding and the evaluation of a proposed siting project:

Information Techniques:

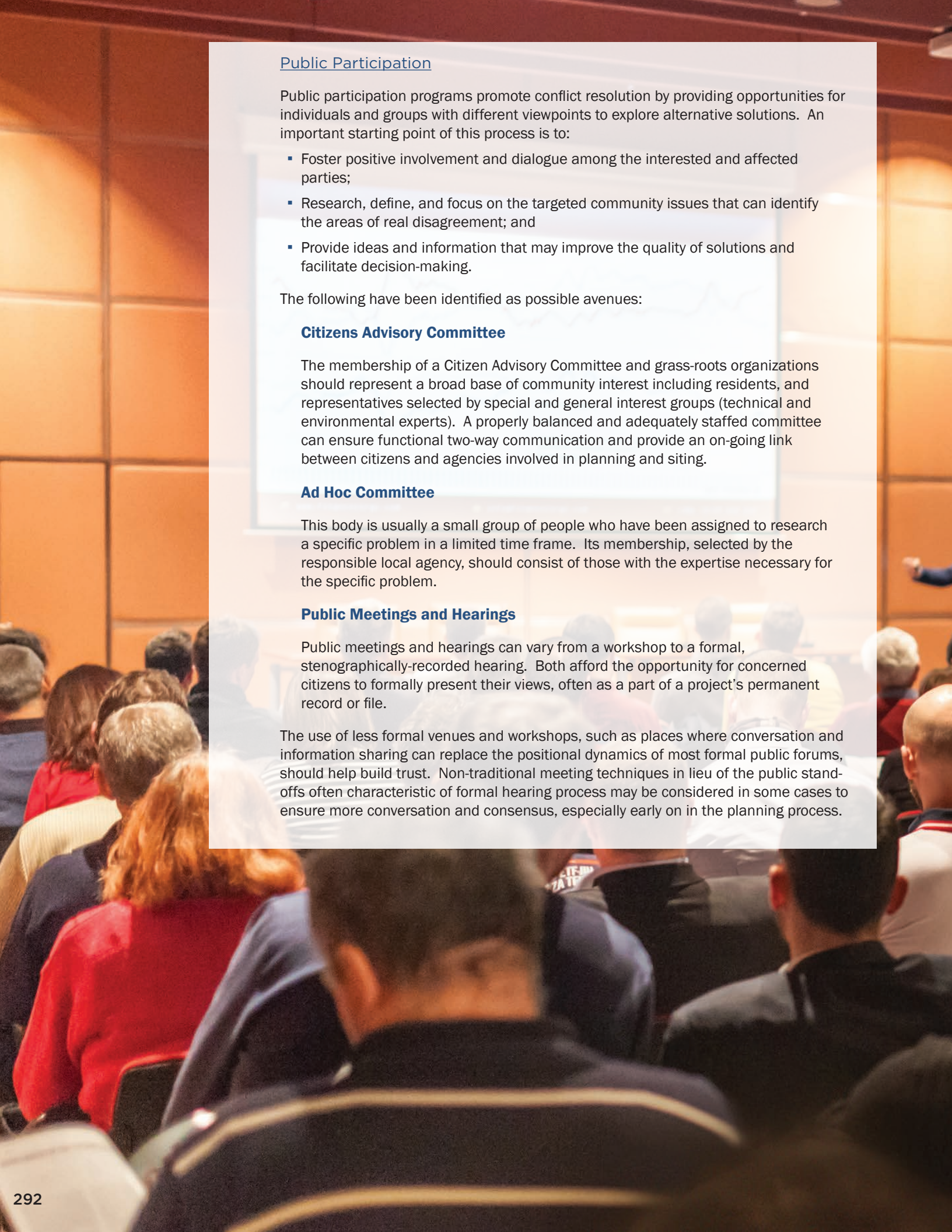
- **Fact Sheets**
- **Newsletters**
- **Education of the media**
- **Use of news media**
- **Mailers**
- **Jurisdiction/Agency websites**
- **Internet**

Consultation Techniques:

- **Public meetings**
- **Public workshops**

Advisory committee drawing on major interest groups and representatives of the affected local community.

Public notices and informational materials should be published in English and other languages spoken by a significant portion of the targeted communities.



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;
- Research, define, and focus on the targeted community 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 and grass-roots organizations 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.

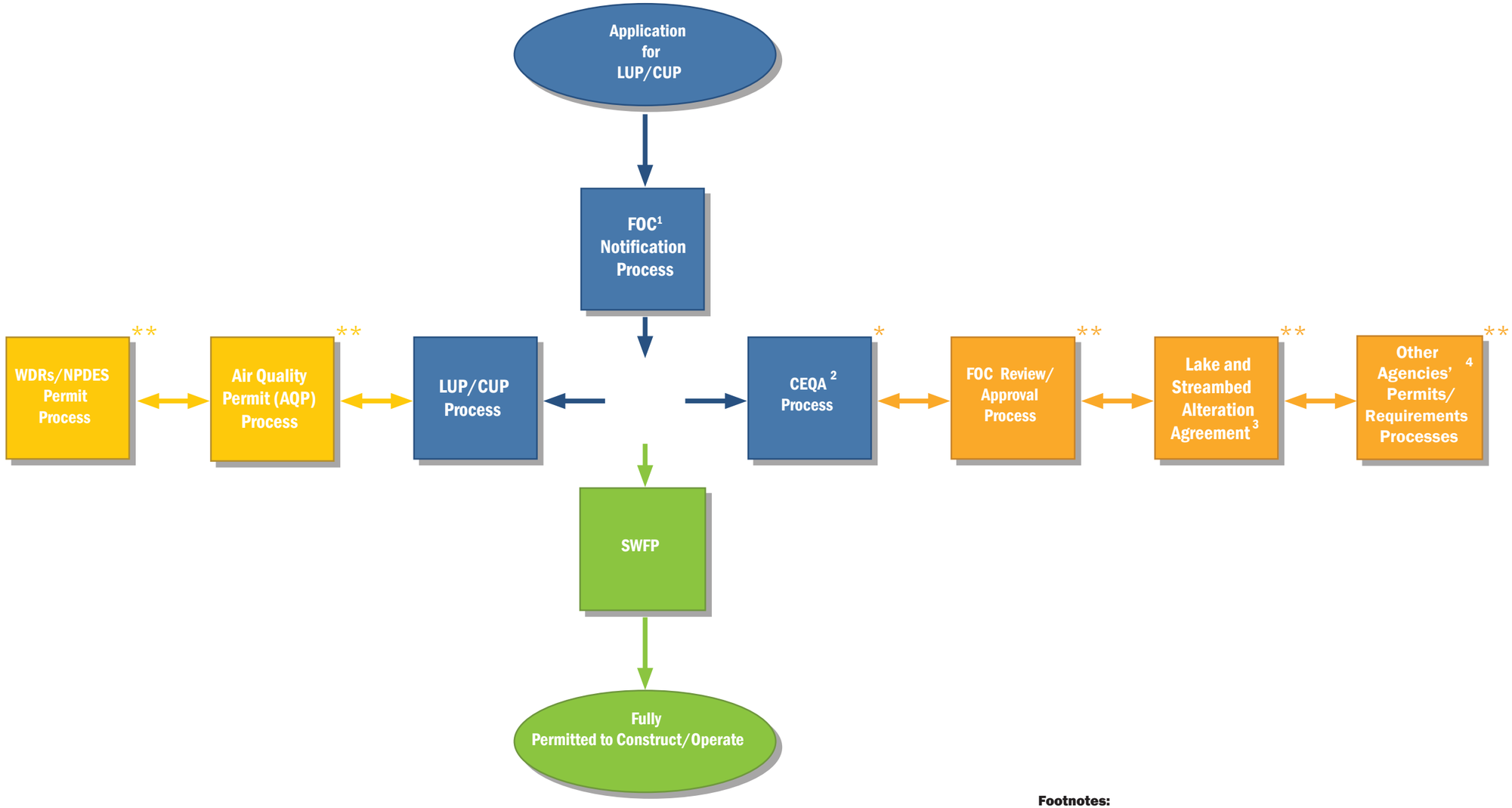
The use of less formal venues and workshops, such as places where conversation and information sharing can replace the positional dynamics of most formal public forums, should help build trust. Non-traditional meeting techniques in lieu of the public stand-offs often characteristic of formal hearing process may be considered in some cases to ensure more conversation and consensus, especially early on in the planning process.

6.6 PERMITS

6.6.1 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 **Flowchart 6-1.**

FLOWCHART 6-1: Solid Waste Disposal Facility Siting Process



Assumptions:

*	The CEQA Process can be initiated at any time after application for LUP/CUP but shall be completed before the LUP/CUP and air quality permit are issued
**	The Process can be initiated at any time after application for LUP/CUP but shall be completed before the SWFP is issued.

Acronyms:

AQP:	Air Quality Permit (Air Quality Management District)
CEQA:	California Environmental Quality Act
CUP:	Conditional Use Permit (by the Lead Agency/Local Land Use Authority)
FOC:	Finding of Conformance (by the Task Force)
LUP:	Land Use Permit (by the Lead Agency/Local Land Use Authority)
NPDES:	National Pollutant Discharge Elimination System (by the RWQCB)
RWQCB:	Regional Water Quality Control Board
SWFP:	Solid Waste Facility Permit (by Local Enforcement Agency)
Task Force:	Los Angeles County Solid Waste Management Committee/ Integrated Waste Management Task Force
WDR:	Waste Discharge Requirement (by the RWQCB)

Footnotes:

1. In the FOC Notification Process, the Task Force, in coordination with the County, would provide notices and comments to project proponents and lead agencies regarding the FOC Process and the FOC Requirements, early in the project/facility permitting process.
2. In the CEQA Process, the FOC Proposal Submittal Requirements will be provided and addressed as part of the CEQA comments.
3. Lake and Streambed Alteration Agreement is issued by CDFW.
4. Other Agencies include: United States Army Corps of Engineers, Los Angeles District, United States Environmental Protection Agency, Region IX, United States Department of Interior, National Park Services, Pacific Westfield Area, and the California Coastal Commission.

Public Works
LOS ANGELES COUNTY

FLOWCHART 6-1:
Solid Waste Disposal Facility Siting Process

6.6.2 Land Use Permit

6.6.2.1 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 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 CUP/LUP
- Specific development standards such as lot size, density, building type, and setback

The CUP/LUP provisions allow a local government to review and place conditions on an individual project to ensure that the project site 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 (permitted) land use be modified to a limited extent.

A local agency can also issue a "variance" for development standards to a parcel of land, 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, variances cannot be issued to allow uses not permitted under the zoning designation[2] of the parcel in question.

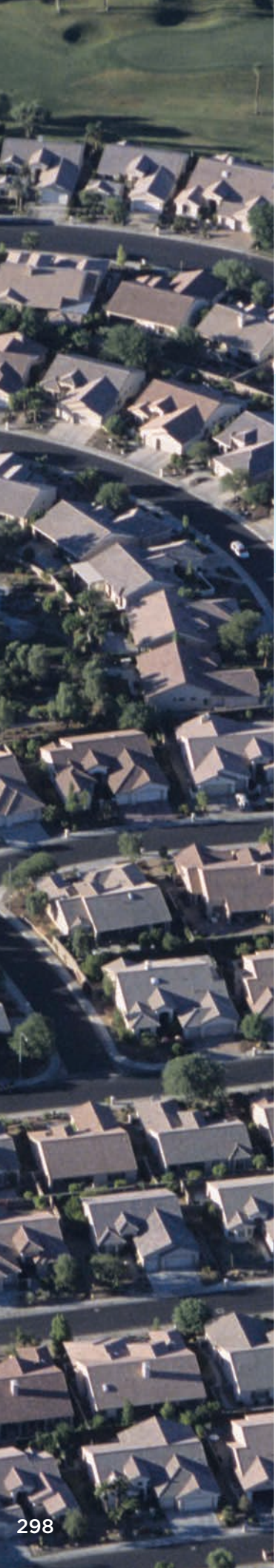
If the zoning ordinance does not permit a proposed project in a specific location, then the applicant must obtain a zone change (or rezoning). A zone change may require the General Plan to be amended so that its land use designation[3] is consistent with the zoning ordinance.

The approvals of General Plan amendments, zone changes, variances, modifications to existing use permits, and CUP/LUPs by the local agency are discretionary decisions subject to the requirements of CEQA and public hearing requirements under state planning laws. CEQA requires the lead agency in the permitting of solid waste disposal facilities, generally the county or city agency responsible for approving the CUP/LUP, to conduct an Initial Study (IS) for the proposed facility. If a potential significant environmental effect is identified, then an Environmental Impact Report (EIR) 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 Mitigated Negative Declaration (MND) or a Negative Declaration (ND) is required.

In addition to the General Plan, the applicant should review the CoIWMP. This is of particular importance since the CoIWMP and its associated CSE designate sites for solid waste disposal facilities, and criteria and requirements for siting facilities.

2 "Zoning designation" refers to a designation that typically defines a wide range of uses for land and structures and then delineates which uses are either permitted as a matter of right; prohibited; or permitted by entitlement (conditional use permit or variance) in each of the designated zones within a jurisdiction's boundaries. This is accompanied by a municipality designating and restricting the location and use of buildings, structures, and land for different purposes including, but not limited to, residential, commercial, industrial, and institutional uses.

3 "Land use designation" refers to the process of describing and designating the distribution of land uses by type, location, intensity, and extent of use. Designations show land planned for development as residential, commercial, industrial, open space, public facilities, and other categories of public and private land use.



6.6.2.2 Permitting Requirements

The siting of a solid waste disposal facility requires the proponent to obtain a LUP from a city or a county government, depending where the site is located (see **Flowchart 6-2**). 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 CUP/LUP 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 must complete 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 environmental impacts

The agency uses this information to determine conditions to be placed on the LUP and to approve a General Plan amendment, if necessary. In addition, the agency uses this information to determine if a request for a zone variance is appropriate. Further, the agency uses this information in their IS to determine whether an EIR or MND/ND is required as mandated by CEQA.

6.6.2.3 Permitting Administrative Process

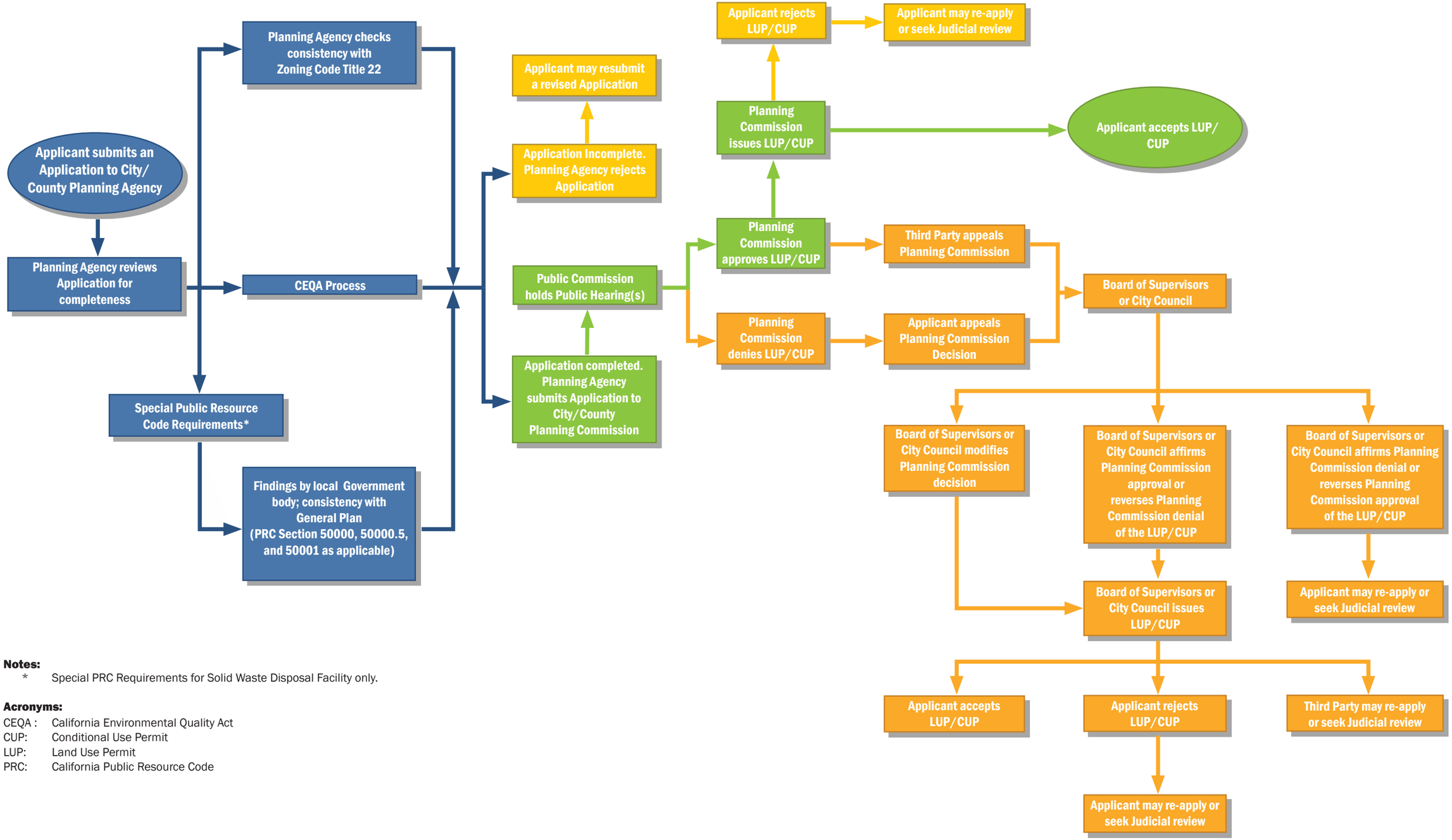
After the CUP/LUP application is submitted to the appropriate agency, the agency has 30 days in which to review the application for completeness and inform the applicant of those areas which are incomplete, if any.

Once the agency determines the application is complete, it initiates the environmental review process under CEQA and orders the preparation of the appropriate environmental document. Following preparation of the final environmental document, an LUP decision is made, usually by the local planning commission, board of zoning adjustment, zoning administrator, and/or local legislative body. The final permit decision for the project is either: (1) approved, (2) approved with conditions, or (3) disapproved.

If the project is approved, the CUP/LUP is issued with its stated conditions and, if necessary, associated zone change, 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 for the lead and responsible agencies to process the required land use permit(s) for a solid waste facility is usually in excess of 12 months, depending on the complexity of the required environmental documentation. This time frame does not take into account challenges to the permit decisions and the judicial review associated with such activities.

FLOWCHART 6-2: Land Use Permit (LUP) / Conditional Use Permit (CUP) Process



Notes:

* Special PRC Requirements for Solid Waste Disposal Facility only.

Acronyms:

CEQA : California Environmental Quality Act
CUP: Conditional Use Permit
LUP: Land Use Permit
PRC: California Public Resource Code

Public Works
LOS ANGELES COUNTY

FLOWCHART 6-2:
Land Use Permit (LUP) / Conditional Use Permit (CUP) Process

6.6.3 California Regional Water Quality Control Board

6.6.3.1 Regulatory Overview

The State of California, through the Porter-Cologne Water Quality Control Act, established nine Regional Water Quality Control Boards (Regional Boards) with the responsibility of developing water quality control plans for their respective regions and the State Water Resources Control Board (SWRCB) to formulate and adopt State policy for water quality control. Los Angeles County lies within the jurisdictional area of two Regional Boards that have developed plans that identify: (1) the beneficial uses of waters in their respective region that are to be protected, (2) water quality objectives that protect those uses, and (3) an implementation plan to accomplish those objectives. The two Regional Boards with jurisdiction over Los Angeles County areas are the Los Angeles Regional Board and the Lahontan Regional Board and their respective jurisdictions are identified in **Figure 6B-1** (in **Attachment 6B**).

6.6.3.2 Water Quality Control Plans

The California Porter-Cologne Water Quality Act and the Federal Water Pollution Control Act Amendments of 1972 require that Water Quality Control Plans (Region Plans) be prepared for each of the nine regions in the state. The purpose of Region Plans is:

- To designate the beneficial use of the Region's water resources, including groundwaters and 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 Region. In order to be consistent with a Basin Plan[4], a proposed solid waste disposal facility must not cause a deterioration of beneficial uses of water or cause water quality objectives to be exceeded.

4 "Basin Plan" refers to the SWRCB's master policy document that contains descriptions of the legal, technical, and programmatic bases of water quality regulation in the Region. The plan must include: a statement of beneficial water uses that the Water Board will protect; the water quality objectives needed to protect the designated beneficial water uses; and the strategies and time schedules for achieving the water quality objectives.

6.6.3.3 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 throughout the United States, 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, Part 257, of the Code of Federal Regulations (CFR) revised the classification system for MSWLFs by defining several different types of solid waste land disposal facilities and structures. Part 258 of CFR 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, including the Los Angeles and Lahontan Regions, amended their requirements for obtaining a Waste Discharge Requirements (WDR) Permit for all municipal solid waste landfills (Class III landfills) in their region 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 Attachment 6A reflect the revisions and are consistent with Subtitle D of RCRA.

6.6.3.4 Waste Discharge Requirements and National Pollutant Discharge Elimination System

The RWQCBs issue WDRs for all landfills, based on the requirements for operating landfills set forth in CCR, Title 27, "Discharges of Waste to Land," and the requirements of Subtitle D of RCRA. WDRs establish conditions relating to water quality control that must be adhered to and require a comprehensive monitoring and reporting procedure.

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, the Regional Board adopts NPDES permits and WDRs 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 set limitations on the type and quantity of surface waters or quality of groundwaters of the State and may specify engineering and technical requirements to ensure compliance.

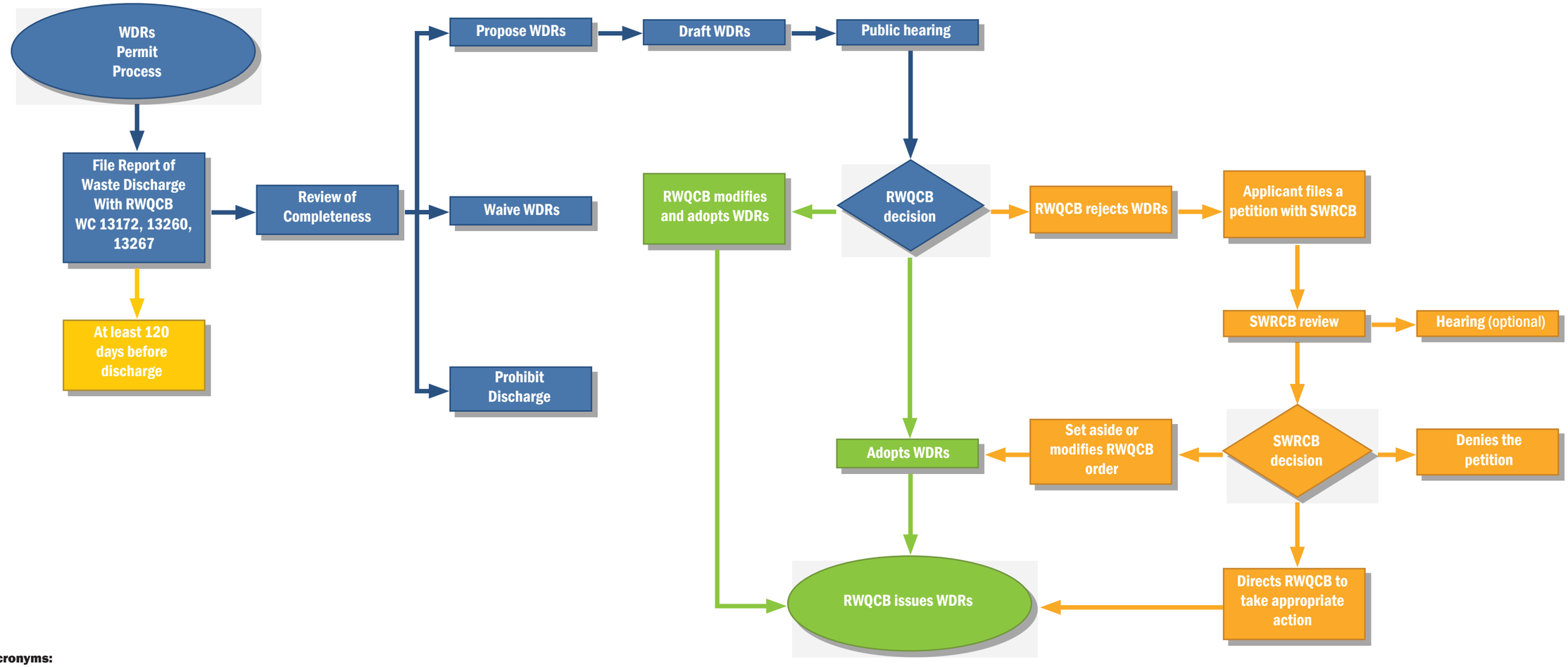
Land disposal facilities will require an NPDES permit and/or WDRs if the facility could potentially affect surface or groundwater quality through waste discharges. Facilities that discharge treated wastewater to surface waters require an NPDES permit.

Specific regulations (CCR, Title 27) 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.

Permitting Requirements

To apply for a WDR permit for a landfill, a "Report of Waste Discharge - Form 200," along with a Joint Technical Document (JTD) must be filed with the appropriate Regional Board (see **Flowchart 6-3**). CCR, Title 27, lists the required information that must be included in the JTD. 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.

FLOWCHART 6-3: Waste Discharge Requirements (WDRs) Permit Process



Acronyms:

WDRs:	Waste Discharge Requirements
RWQCB:	Regional Water Quality Control Board
SWRCB:	State Water Resource Control Board
WC:	Water Code (Title 23)

Public Works
LOS ANGELES COUNTY

FLOWCHART 6-3:
Waste Discharge Requirements (WDRs) Permit Process

WDR permits must be obtained or waived by the Regional Board concurrent with a Solid Waste Facility Permit (SWFP) issued by the appropriate LEA/CalRecycle.

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 discharge (see **Flowchart 6-4**). Chapter 15, Article 9 lists the required information that must be included in the application.

Administrative Process

Waste Discharge Requirements

The SWRCB requires Class III landfills to obtain WDRs. The WDRs establish conditions for the protection of groundwater and surface water, specify the types of wastes that may be accepted at the facility, and include a comprehensive water quality Monitoring and Reporting Program. The "Report of Waste Discharge" or Joint Technical Document are submitted to the appropriate Regional Board. The Executive Officer of the Regional Board then determines if the application is complete. If the application is determined to be incomplete, then the Executive Officer is responsible for notifying the applicant of the deficiencies in the application within 30 days.

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, are 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 Regional Board holds a public meeting or a formal hearing on the tentative WDRs and either adopts the WDRs, modifies them before adopting them, or rejects them. Adoption requires a majority vote of the Regional Board.

National Pollutant Discharge Elimination Systems 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.

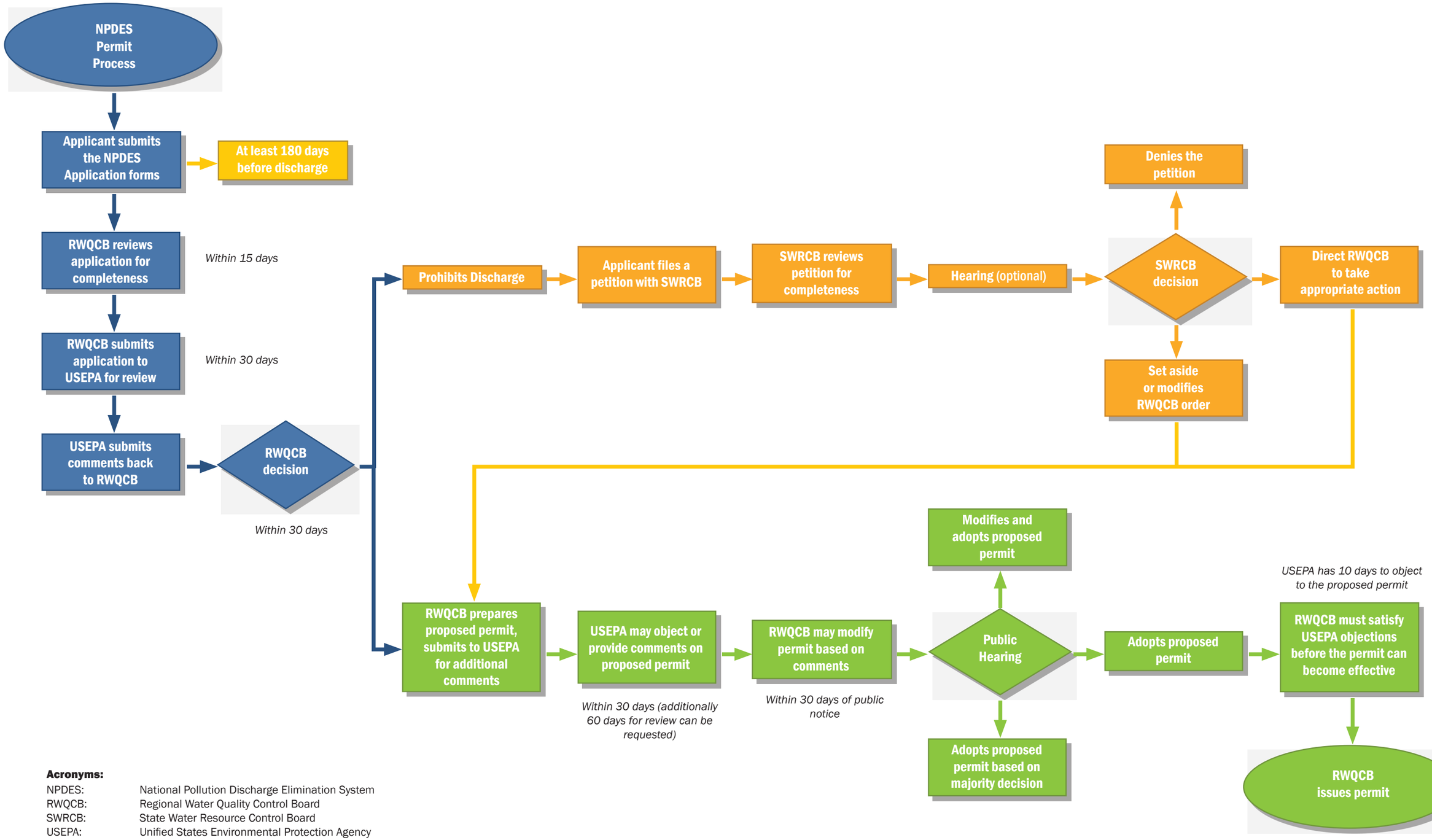
Once the application is determined to be complete by the Executive Officer, it is forwarded within 15 days to the Region IX office of the USEPA (i.e., Regional Administrator). The Regional Administrator has 20 days to review the NPDES permit application for completeness and to request any additional information from the applicant. If it is necessary to request additional information from the applicant, then the Regional 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 an 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

FLOWCHART 6-4: National Pollution Discharge Elimination System (NPDES) Permit Process



Acronyms:

NPDES:	National Pollution Discharge Elimination System
RWQCB:	Regional Water Quality Control Board
SWRCB:	State Water Resource Control Board
USEPA:	Unified States Environmental Protection Agency

Public Works
LOS ANGELES COUNTY

FLOWCHART 6-4:
National Pollution Discharge Elimination System (NPDES) Permit Process

The tentative requirements are forwarded to the Regional Administrator for review. The Regional 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 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:

- Post 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 and post notices via the internet
- Post the notice on the jurisdiction's/agency's websites

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 Regional Board at the hearing. The 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 modifies the permit to satisfy the objections.

If the Executive Officer determines that a NPDES permit should not be issued after evaluating the application, then the Executive Officer must submit a report to the Regional Board stating the reasons for the Executive Officer's action. The Executive Officer's report then follows the same administrative process outlined above.

The Regional Board and/or USEPA may concur with the Executive Officer's recommendation or require the Executive Officer to prepare a NPDES permit.

Appeals Process

Pursuant to Section 13320 of the California Water Code, any aggrieved party may seek review of the Regional Board's WDRs or NPDES permit by filing a petition with the SWRCB within 30 days of the Regional Board's decision.

The petition must include:

1. *Name, address, telephone number and email address (if available) of the petitioner.*
2. *The specific action or inaction of the regional board, which the state board is requested to review and a copy of any order of resolution of the regional board which is referred to in the petition, if available. If the order or resolution of the regional board is not available, a statement shall be included giving the reason(s) for not including the order or resolution.*
3. *The date on which the Regional Board acted or refused to act or on which the Regional Board was requested to act.*
4. *A full and complete statement of the reasons the action or failure to act was inappropriate or improper.*
5. *The manner in which the petitioner is aggrieved.*
6. *The specific action by the SWRCB or Regional Board which petitioner requests.*
7. *A statement of points and authorities in support of legal issues raised in the petition, including citations to documents or the transcript of the regional board hearing if it is available.*
8. *A statement that the petition has been sent to the appropriate regional board and to the discharger, if not the petitioner.*
9. *A statement that the substantive issues or objections raised in the petition were raised before the regional board, or an explanation of why the petitioner was not required or was unable to raise these substantive issues or objections before the regional board.*

If a public hearing is requested, then the petition must state that additional evidence is available that was not presented to the Regional Board or that evidence was improperly excluded by the Regional Board. The nature of the evidence and the facts to support it must be included in the petition.

6.6.4 Air Quality Management District

6.6.4.1 Regulatory Overview

The State of California is divided into fifteen air basins and 35 local air districts which are served by either county air pollution control districts or multi-county air quality management districts. Los Angeles County lies within two local air districts, namely, the South Coast Air Quality Management District (SCAQMD) and the Antelope Valley Air Quality Management District (AVAQMD).

The SCAQMD was created by the California Legislature in 1977 by merging the Air Pollution Control Districts of the four counties sharing the South Coast Air Basin. The South Coast Air Basin includes portions of Los Angeles, Riverside, and San Bernardino counties and all of Orange County. On July 1, 1997, the desert portion of Los Angeles County was established as its own air district, the Antelope Valley **Antelope Valley Air Quality Management District**, pursuant to former Section 40106 of the California Health and Safety Code (H&SC). On January 1, 2002, the Antelope Valley Air Quality Management District (AVAQMD) was replaced by the AVAQMD, pursuant to Section 41300 et seq. of H&SC. The Antelope Valley air districts fall within the Mojave Desert Air Basin and are bordered by Kern County to the north, the Angeles National Forest and San Gabriel Mountains to the south, San Bernardino County to the east, and the Angeles National Forest to the west.

The SCAQMD is the agency responsible for attaining state and federal clean air standards in the South Coast Air Basin. As a successor district to SCAQMD, the AVAQMD assumes authorities and duties of the SCAQMD for the Antelope Valley pursuant to Section 41302 of HSC. Both SCAQMD and AVAQMD are responsible for air quality permits for **stationary sources** within their respective districts.

6.6.4.2 Air Quality Management Plan

State and federal clean air regulations require air quality permits for all stationary sources to ensure that emission controls meet the needs for the region to make steady progress toward achieving and maintaining federal and state ambient air quality standards. Both SCAQMD and AVAQMD have rules and regulations developed to implement their respective air quality management plans. Since the SCAQMD is non-attainment (not meeting the ambient air quality standards) for ozone and fine particulates, it is required to impose stringent requirements for facilities that emit **Volatile Organic Compounds** (**VOCs**), nitrogen oxides, sulfur dioxide, and particulates. In addition, SCAQMD is implementing a Clean Communities Plan (formerly known as the Air Toxics Control Plan) in order to protect public health. SCAQMD and AVAQMD are also the designated agencies for implementing and enforcing emission standards and/or control measures that are directly adopted by federal USEPA and state ARB for stationary sources.

Prior to construction and startup of a new or modified air pollution source or control equipment, SCAQMD and AVAQMD require a project proponent for a solid waste disposal facility or a transformation facility to acquire a Permit to Construct and a Permit to Operate (see **Flowchart 6-5**). As part of the permit application process, the project proponent must demonstrate that the project meets all applicable federal, state, and regional/local air quality rules and regulations. AQMDs typically break down a facility into smaller "permit units" to facilitate their evaluations and emissions tracking and require a permit for each of these permit units. For example, a solid waste disposal facility may include the permit units of landfill gas collection systems, landfill gas flaring facilities, and other types of stationary facilities with potential emissions or uses to control emissions. In addition, certain solid waste management facilities, such as landfills and material recovery facilities, may need to submit a compliance plan or odor management plan for approval by the AQMDs. Operation of facilities subject to these plans shall not begin until the submitted plans are approved by the AQMDs. Any facilities that meet the "major source" definition or are subject to a federal requirement or emission standard are required to obtain the above-mentioned AQMD permits or approved plans in the form of a (**Clean Air Act**) Title V facility permit from AQMD.

Key Terms

Air Pollution Control District (APCD)
Refers to a county agency with authority to regulate stationary, indirect, and area sources of air pollution (e.g., power plants, highway construction, and housing developments) within a given county, and governed by a district air pollution control board composed of the elected county supervisors and city representatives (some APCD boards also comprise public representatives as board members).

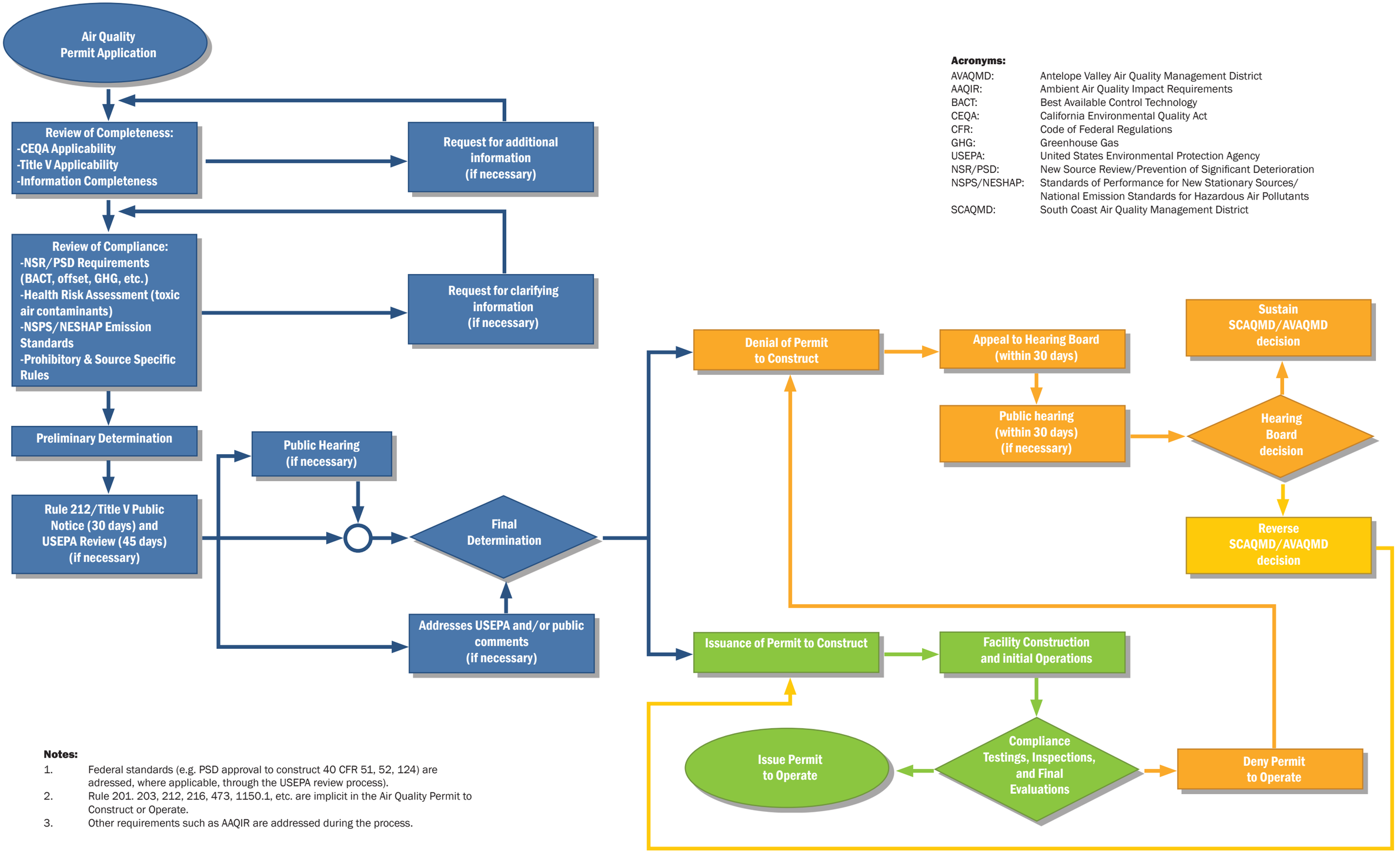
Stationary Sources
Refer to the non-mobile sources, such as power plants, refineries, and manufacturing facilities, which emit air pollutants.

Volatile Organic Compounds (VOCs)
Refer to the hydrocarbon compounds that are present in the ambient air. VOCs contribute to the formation of smog and/or may be toxic. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints.

Clean Air Act (CAA)
Refers to a federal law passed in 1970 and amended in 1977 and 1990, which forms the basis for the national air pollution control effort. Basic elements of the act include national ambient air quality standards for major air pollutants, air toxics standards, acid rain control measures, and enforcement provisions.

Basic elements of the Clean Air Act include national ambient air quality standards for major air pollutants, air toxics standards, acid rain control measures, and enforcement provisions.

FLOWCHART 6-5: Air Quality Permit Process



Acronyms:

AVAQMD:	Antelope Valley Air Quality Management District
AAQIR:	Ambient Air Quality Impact Requirements
BACT:	Best Available Control Technology
CEQA:	California Environmental Quality Act
CFR:	Code of Federal Regulations
GHG:	Greenhouse Gas
USEPA:	United States Environmental Protection Agency
NSR/PSD:	New Source Review/Prevention of Significant Deterioration
NSPS/NESHAP:	Standards of Performance for New Stationary Sources/ National Emission Standards for Hazardous Air Pollutants
SCAQMD:	South Coast Air Quality Management District

Notes:

1. Federal standards (e.g. PSD approval to construct 40 CFR 51, 52, 124) are adressed, where applicable, through the USEPA review process).
2. Rule 201. 203, 212, 216, 473, 1150.1, etc. are implicit in the Air Quality Permit to Construct or Operate.
3. Other requirements such as AAQIR are addressed during the process.

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FLOWCHART 6-5:
Air Quality Permit Process

Title V permits are federally enforceable and would incorporate all local permits and all applicable federal, state, and local requirements in one document. Title V permits must be renewed every five years; however, Title V permits for transformation facilities must be renewed every 12 years. When the permitted equipment is modified or there are changed operation conditions, the facility owner must also obtain a revised Title V permit. All new (initial), renewal, and significant revisions to Title V permits are subject to a 30-day public and a 45-day USEPA review period, after the AQMDs complete their evaluations. Other minor revisions are only subject to USEPA's 45-day review.

6.6.5 Finding of Conformance

All solid waste disposal facilities must have a Finding of Conformance (FOC) with the CSE, as described in **Chapter 10** of the CSE (exemptions are listed in Section 10.4 of **Chapter 10** of the CSE) (see **Chapter 10**, **Flowchart 10-1**). The FOC Process was developed to ensure that solid waste disposal facilities are consistent with PRC Section 41721.5. 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. A 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 an FOC with the CSE/CoIWMP. **Chapter 10** discusses the FOC process in greater detail.

For solid waste disposal facilities located in County incorporated cities, the FOC Proposal Requirement requires for the applicant to obtain an FOC with the CSE, from the Task Force, prior to issuance of the SWFP by the appropriate LEA.

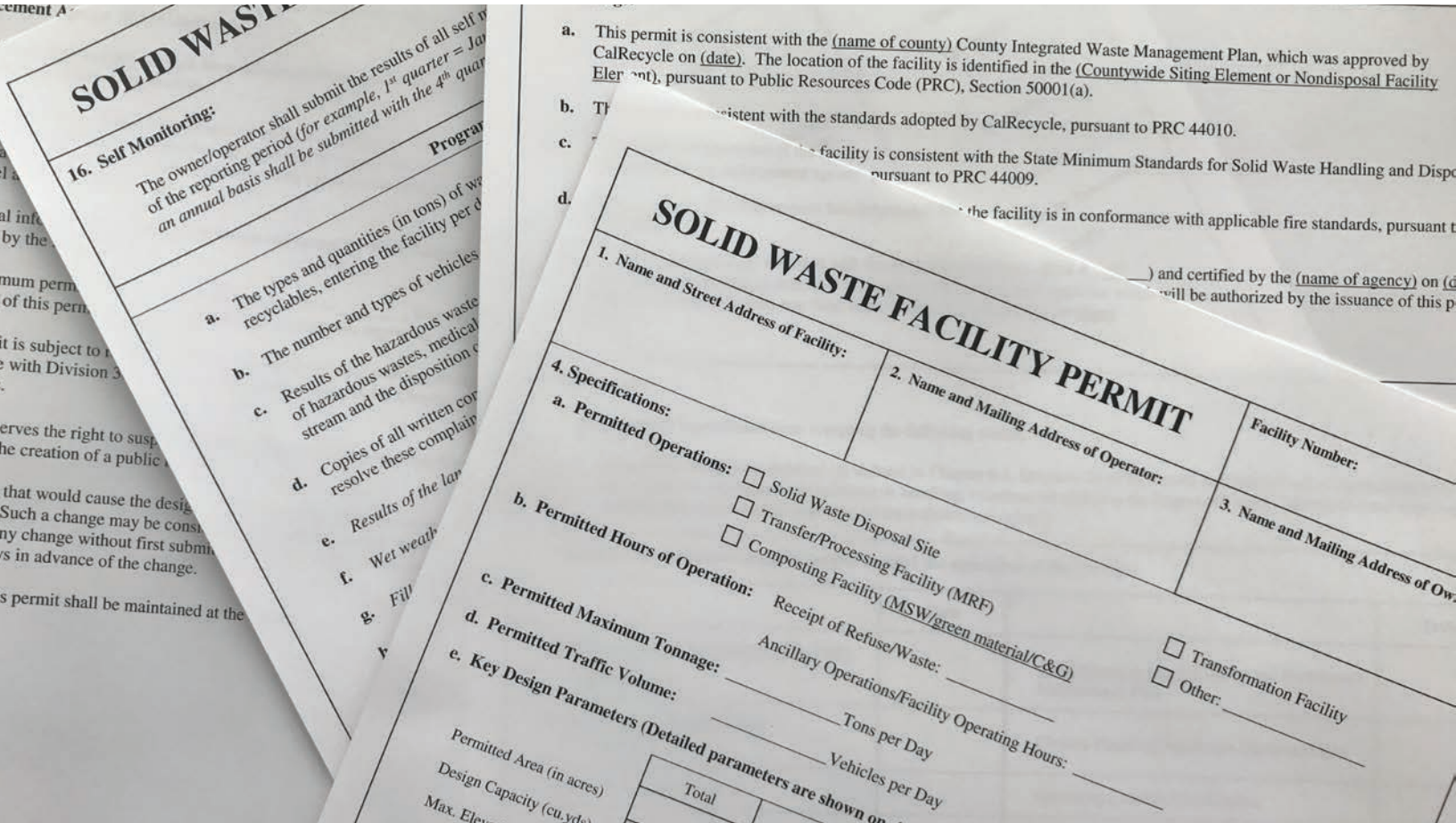
6.6.6 Solid Waste Facility Permit

6.6.6.1 Regulatory Overview

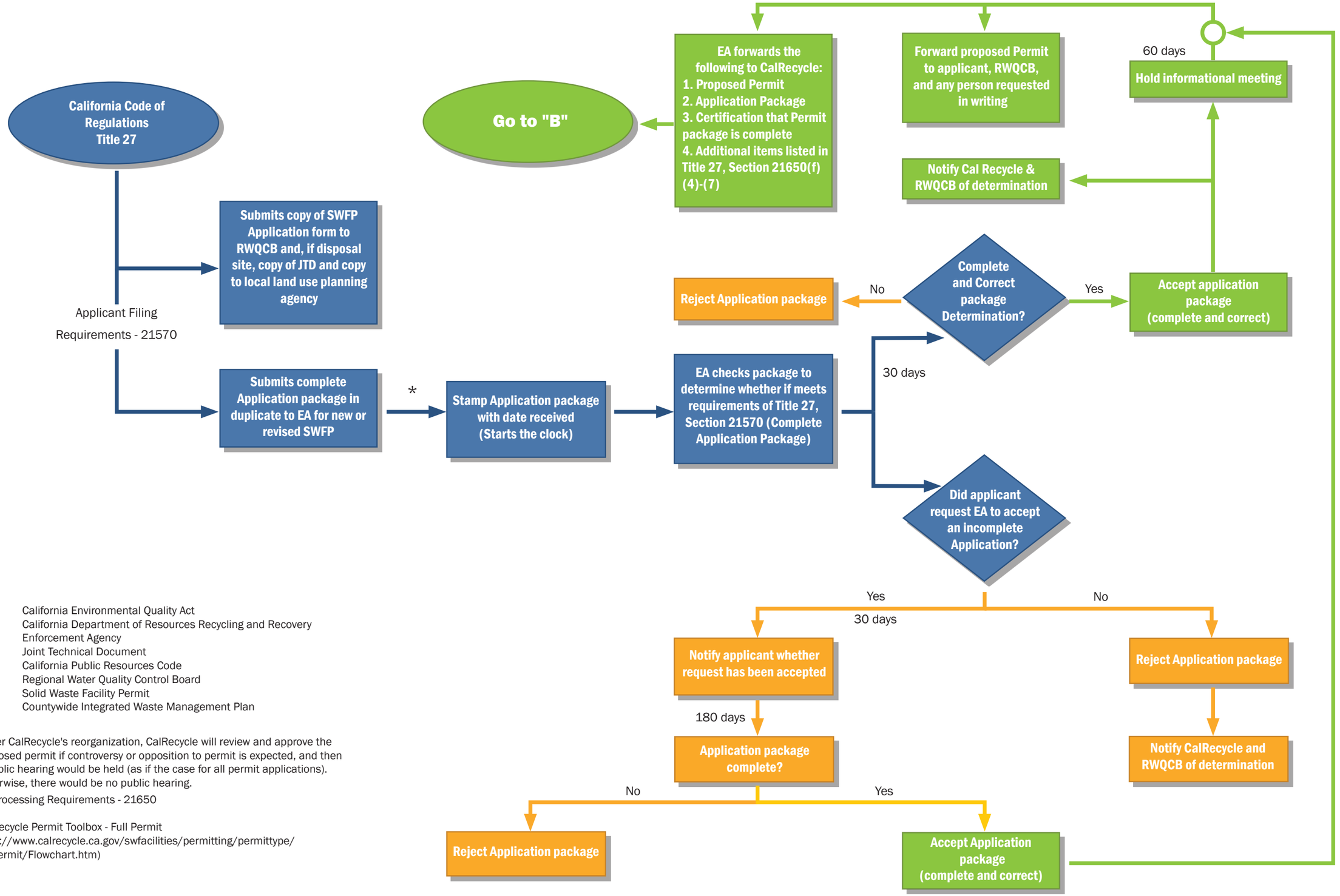
All Class III landfills must obtain a SWFP issued by the LEA and concurred on by CalRecycle. To improve waste management practices in California, the Z'berg-Kapiloff Solid Waste Control Act of 1976 (Act) which was replaced by the California Integrated Waste Management Act of 1989 (AB 939) was enacted 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. It should be noted that AB 939 has incorporated and further expanded all requirements of the Z'berg-Kapiloff Solid Waste Control Act of 1976.

LEAs were designated by local governments and approved by the then-California Integrated Waste Management Board to carry out these enforcement activities. The County of Los Angeles Department of Public Health is the designated LEA for the unincorporated areas of the County and all cities in the County with the exception of the Cities of Los Angeles, Vernon, and West Covina, which have elected to be the sole enforcement authority for their jurisdictions. In addition, the City and County of Los Angeles local governing bodies formed and designated Sunshine Canyon Landfill Local Enforcement Agency to regulate the combined City/County Sunshine Canyon Landfill.

To obtain a SWFP the applicant must file a permit application with the LEA, or CalRecycle, if there is no designated and certified LEA, a minimum of 150 days in advance of the date that the facility is to commence operation (see **Flowchart 6-6**). Along with the application, the applicant must provide appropriate technical reports detailing site specific information for the proposed facility. This information is analyzed to determine compliance with the State Minimum Standards for Solid Waste Handling and Disposal, and to determine conditions to be placed on the permit to conform with these standards. The applicant must obtain all other pertinent permits and include their respective status in the application for consideration. The LEA or CalRecycle then review the application, and issue or deny the permit. The applicant has the opportunity to appeal the decision before a hearing panel if the LEA or CalRecycle deny the permit.



FLOWCHART 6-6: Solid Waste Facility Permit (Full Permit) Process



Acronyms:

CEQA:	California Environmental Quality Act
CalRecycle:	California Department of Resources Recycling and Recovery
EA:	Enforcement Agency
JTD:	Joint Technical Document
PRC:	California Public Resources Code
RWQCB:	Regional Water Quality Control Board
SWFP:	Solid Waste Facility Permit
CoIWMP:	Countywide Integrated Waste Management Plan

Note:

* Under CalRecycle's reorganization, CalRecycle will review and approve the proposed permit if controversy or opposition to permit is expected, and then a public hearing would be held (as if the case for all permit applications). Otherwise, there would be no public hearing.

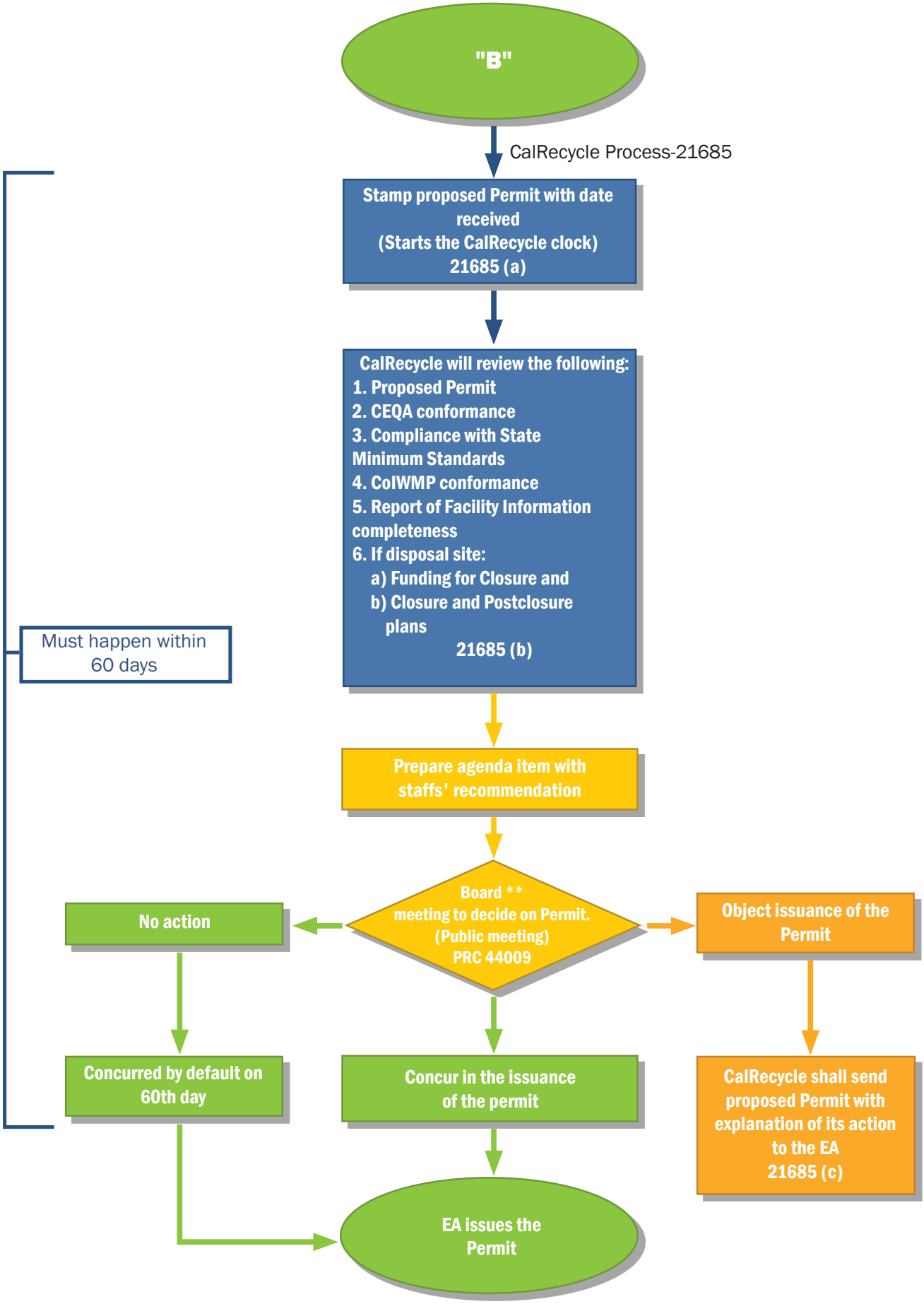
** EA Processing Requirements - 21650

Source: CalRecycle Permit Toolbox - Full Permit (http://www.calrecycle.ca.gov/swfacilities/permitting/permittype/fullpermit/Flowchart.htm)

Public Works
LOS ANGELES COUNTY

FLOWCHART 6-6:
Solid Waste Facility Permit (Full Permit) Process

FLOWCHART 6-6: Solid Waste Facility Permit (Full Permit) Process (Cont.)



Key Terms

Report of Disposal Site Information (RDSI)
Refers to a disposal facilities' operation and design plan that describes the facility and how it will comply with State minimum standards as described in CCR, Title 27, Section 21600.

6.6.6.2 Permitting Requirements

CCR, Title 27, Section 21570(a) requires the following:

Any operator of a disposal site who is required to have a full SWFP and Waste Discharge Requirements pursuant to PRC, Division 31 and Section 20080(f), shall submit an application package for a SWFP in duplicate to the LEA pursuant to paragraph (f) this Section. The applicant shall also simultaneously submit one copy of the application form and the JTD to the RWQCB, and if the applicant is incorporating the preliminary plan then one copy of the form and the JTD to CalRecycle. The applicant shall ensure demonstration of financial assurance to CalRecycle pursuant to **Chapter 6** of this Subdivision.

Additionally, CCR, Title 27, Section 21570(f) requires that a complete and correct SWFP application package for a disposal site shall include, but not necessarily be limited to, the following items:

(1) Completed Joint Application Form CIWMB E-1-77 (Version 6-96) (Attachment A);

(2) Completed **Report of Disposal Site Information (RDSI)** or RSDI in the format of a JTD;

(3) CEQA compliance information, as indicated in CCR, Title 27, Section 21570(f)(3) (see **Flowchart 6-7**);

(4) Any CEQA Mitigation Monitoring Implementation Schedule;

(5) Conformance finding information, including one of the following:

(A) Until a countywide integrated waste management plan has been approved by CalRecycle, the applicant shall include statements that: the facility is identified and described in the or conforms with the CoSWMP, or otherwise is consistent with the city or county General Plan and compatible with surrounding land use, in accordance with PRC Section 50000.5, or

(B) After the countywide integrated waste management plan has been approved by CalRecycle, the applicant shall include a statement that: the facility is identified in either the CSE, NDFE, or in the SRRE of the jurisdiction in which it is located; or that facility is not required to be identified in any of these elements pursuant to PRC Section 50001; and

(6) Current documentation of acceptable funding levels for Financial Assurance Mechanism;

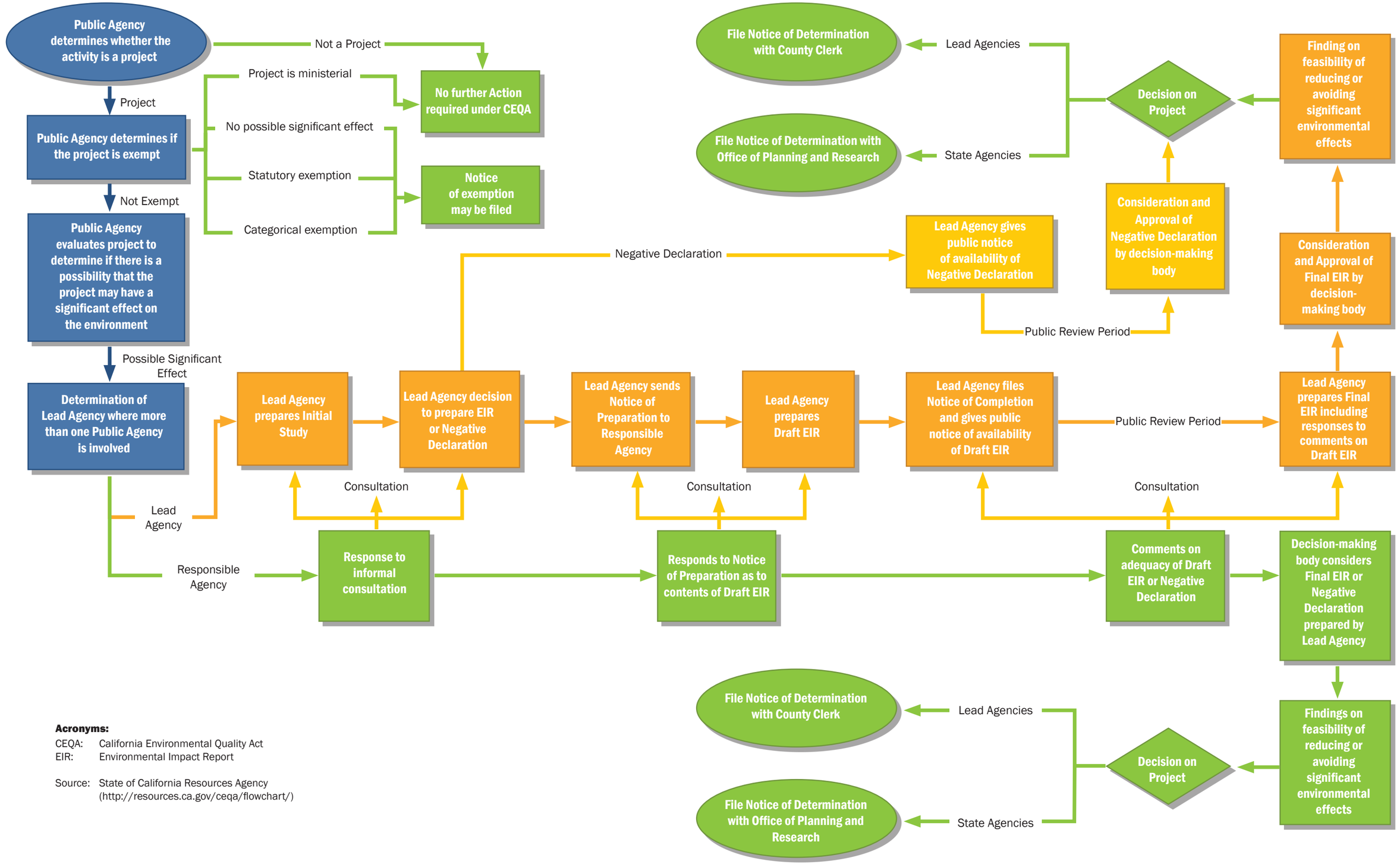
(7) Current documentation of compliance with operating liability requirements;

(8) LUPs and/or CUPs; and

(9) List of all public hearings and other meetings open to the public that have been held or copies of notices distributed that are applicable to the proposed solid waste facilities permit action.

Furthermore, CCR, Title 27, Section 21590, states that any operator of a disposal site which is required to submit a RDSI closure/post closure maintenance plan, and/or a report of waste discharge or any other report that addresses similar regulatory concerns, may address those requirements under one JTD. The JTD will be used in place of the RDSI only if it meets all the requirements set forth in CCR, Title 27, Section 21600, and lists where each requirement has been satisfied in the document in the form of a JTD index pursuant to paragraph (c) of CCR, Title 27, Section 21590.

FLOWCHART 6-7: California Environmental Quality Act (CEQA) Process

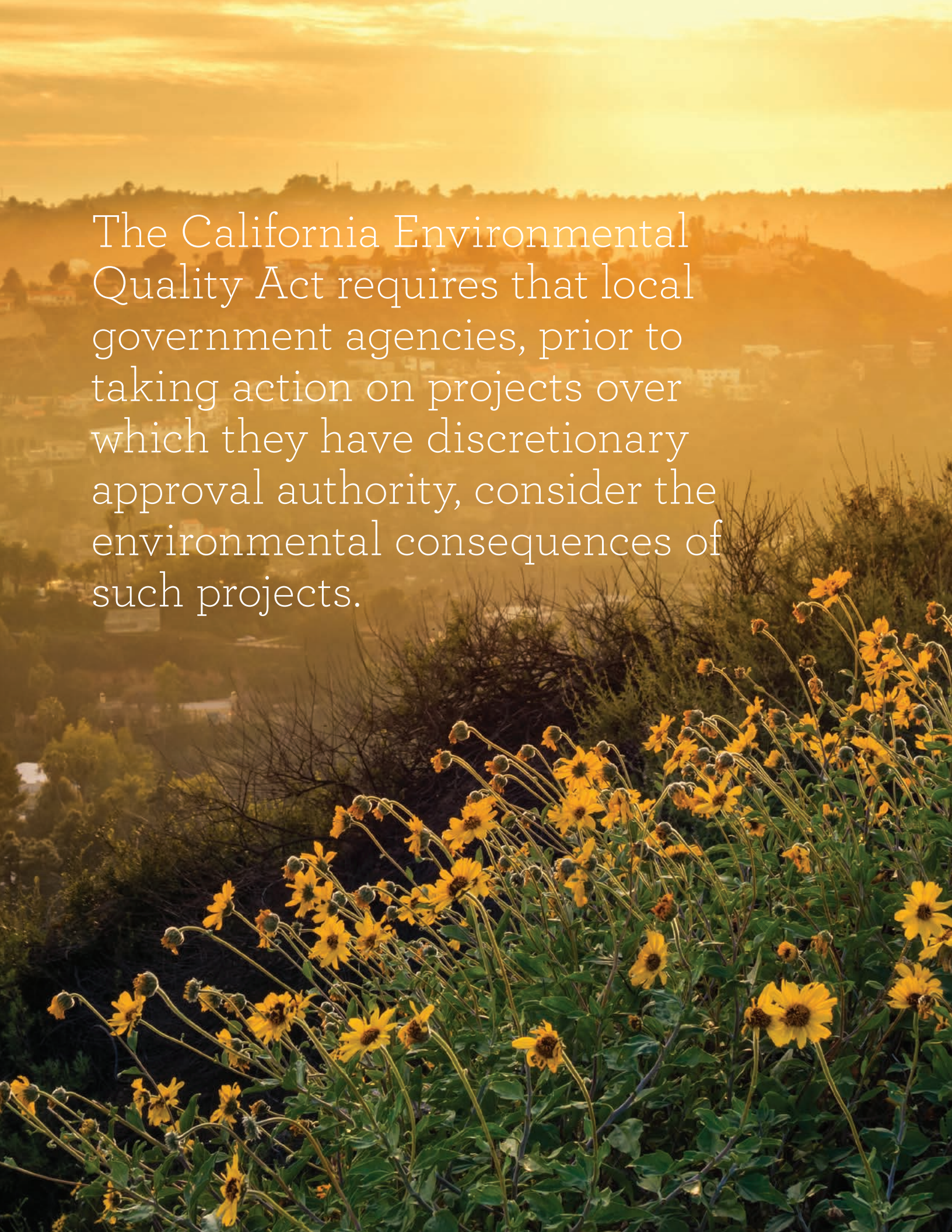


Acronyms:
CEQA: California Environmental Quality Act
EIR: Environmental Impact Report

Source: State of California Resources Agency (http://resources.ca.gov/ceqa/flowchart/)

Public Works
LOS ANGELES COUNTY

FLOWCHART 6-7:
California Environmental Quality Act (CEQA) Process



The California Environmental Quality Act requires that local government agencies, prior to taking action on projects over which they have discretionary approval authority, consider the environmental consequences of such projects.

6.6.6.3 Administrative Process

The LEAs are required to submit a Local Enforcement Agency Program Plan to CalRecycle for approval. The LEA program plans for the County and the cities are very similar.

The SWFP process begins with the filing of a SWFP application from a prospective facility proponent with the LEA. The LEA reviews and analyzes the information provided, along with other required information, including: CEQA documentation, land use permit; waste discharge requirements; air quality permit; various plans; an FOC with the County of Los Angeles CSE; and any other additional information as needed in order to complete its review. The LEA also reviews the permit application for compliance with the State Minimum Standards for Solid Waste Handling and Disposal. The facility cannot start operation until a SWFP has been issued.

The LEA also reviews the permit application for compliance with the State Minimum Standards for Solid Waste Handling and Disposal. Pursuant to CCR, Title 27, Section

21650, if the LEA finds that the SWFP application package meets the requirements of CCR, Title 27, Section 21570, the application package shall be accepted as complete and correct. Within five days of filing, the LEA shall notify CalRecycle, and the RWQCB if applicable, of its determination. The LEA shall either accept or reject the application within 30 days of its receipt. If the LEA determines that the application package does not meet the requirements of Section 21570, it shall reject and not file the application; and it shall within five days of determination, notify the applicant, CalRecycle, and the RWQCB if applicable, enumerating the grounds for rejection, if applicable.

Pursuant to PRC Section 44004, within 60 days of receiving the application as complete and correct, the LEA is required to conduct at least one public informational meeting (PIM) on its determination of the proposed SWFP. The LEA shall give notice of the PIM pursuant to Section 65091 of GC, except that the notice shall be provided to all owners of real property that is the subject of the PIM, if specified in the regulations adopted by CalRecycle pursuant to subdivision (i) of Section 44004 of the PRC.

Also, pursuant to CCR, Title 27, Section 21650, if the permit application is deemed complete the application package will be filed and within a 55-days after the application package has been filed the LEA shall mail to CalRecycle the following:

1. A copy of the proposed solid waste facilities permit.
2. The accepted application package.
3. A certification from the LEA that the permit application package is complete and correct, including a statement that the **RFI** meets the requirements of CCR, Title 27, Section 21600; and CCR Title 14 Sections 17863, 17863.4, 17346.5, 18221.6, 18223.5, or 18227.
4. Documentation, if applicable, of the applicant's compliance with any RWQCB enforcement order or the status of the applicant's WDRs, as described in PRC section 44009.
5. Any written public comments received on a pending application and a summary of comments received at the informational meeting and, where applicable, any steps taken by the EA relative to those comments. Subsequent to the transmittal of the proposed solid waste facilities permit, the EA shall, within five (5) days of receipt, provide a copy of any additional written public comments to CalRecycle.
6. A permit review report which has been prepared pursuant to Section 21675 within the last five years.
7. EA finding that the proposed solid waste facilities permit is consistent with and is supported by existing CEQA analysis, or information regarding the progress toward CEQA compliance.

The proposed SWFP will contain the conditions the LEA 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 package to CalRecycle for concurrence. Within a 60-day period, CalRecycle 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 CalRecycle and will become part of CalRecycle's record of action. CalRecycle can either concur with or object to the proposed permit. Lack of action by CalRecycle within the 60-day period is considered as tacit concurrence.

Following concurrence by CalRecycle, 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/CalRecycle 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/CalRecycle. The LEA/CalRecycle will review the site design, and implementation and operation plan to determine if any revisions are necessary. The LEA/CalRecycle will submit a revised solid waste facility permit based on the findings of the report.

Key Terms

Report of Facility Information (RFI)
Refers to "an operation and design plan that describes the facility and how it will comply with State Minimum Standards. RFIs are required to be kept current." (See Local Enforcement Agency Permit Toolbox at http://www.calrecycle.ca.gov/.)

6.6.7 California Department of Fish and Wildlife

6.6.7.1 Lake and Streambed Alteration Agreement

The CDFW requires a project proponent to acquire a Lake and Streambed Alteration Agreement for any project which impacts and/or alters a natural watercourse (USGS blue line watercourse). The Lake and Streambed Alteration Agreement specifies measures for the protection and/or restoration of any wetland habitat on the site.

6.6.8 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
- United States Department of the Interior, Fish and Wildlife Services
- California Coastal Commission

ATTACHMENT 6-A

SOLID WASTE DISPOSAL AND ALTERNATIVE TECHNOLOGY FACILITY SITING CRITERIA

SOLID WASTE DISPOSAL AND ALTERNATIVE TECHNOLOGY FACILITY SITING CRITERIA

I. SITING CRITERIA

The criteria presented herein can be used to evaluate the suitability of locations for solid waste land disposal and alternative technology facilities (e.g., conversion technology, transformation).

These criteria are not intended to replace any existing or future requirements/regulations mandated by Federal, State, and/or local agencies. However, these criteria have not been developed to be used for exclusionary purposes. Rather, the criteria have been developed to assist in achieving the following objectives to safeguard the public health and safety when siting a solid waste land disposal/alternative technology facility (e.g., conversion technology, transformation):

- 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
- Ensure compliance with federal, state and local requirements.

Each objective is defined in terms of a series of factors. These factors are listed in **Table 6A-1**. The description of each factor (**Table 6A-2**) provides a definition of the factor; an explanation of the significance of each factor in terms of potential impacts of the facility and concerns likely to arise from the community; a set of criteria to allow application of each factor to a site; and, where applicable, procedures for mitigating potential adverse impacts. For each criteria, the applicable solid waste land disposal/alternative technology facility is specified; unless otherwise noted, "land disposal facilities" are defined as both Class III and Unclassified (inert) landfills. It should also be recognized that some of the factors listed may not be applicable to all types of solid waste land disposal/alternative technology facilities and, therefore, care should be used as to the applicability of individual factors.

The United States Code of Federal Regulations (CFR) defines a sanitary landfill as "a land disposal site employing an engineered method of disposing of solid wastes on land in a manner that minimizes environmental hazards by spreading the solid wastes in thin layers, compacting the solid wastes to the smallest practical volume, and applying a compacting cover material at the end of each operating day." (40 CFR 240.101 (w).)

The California Public Resources Code (PRC) defines solid wastes as "all putrescible and nonputrescible solid, semi-solid, 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 semi-solid wastes, and other discarded solid and semi-solid wastes. It does not include hazardous waste, low-level radioactive wastes or medical wastes." (PRC Section 40191)

California classifies landfills further by defining the acceptable material disposed, and the construction and safety standards for each landfill classification. These classifications are found in Title 23, Section 2520 et seq. of the California Code of Regulations (CCR). As defined, Class III landfills can accept any type of non-hazardous solid waste for disposal. Unclassified landfills can accept only non-organic inert materials.

Alternative Technology refers to a technology, such as conversion technology, transformation, EMSW conversion, or other emerging technologies, capable of processing solid waste, in lieu of landfill disposal.

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 chemically or biologically process solid wastes, for the purpose of volume reduction, synthetic fuel production, or energy recovery. A transformation facility does not include a composting facility." (14 CCR 18720(a)(77))

II. USE OF SITING CRITERIA

The siting criteria presented here for the planning and evaluation of proposed sites for solid waste land disposal and alternative technology facilities (e.g., conversion technology, transformation) have broad applicability in the siting process. For each phase of the siting process (i.e., site selection, site evaluation, site permitting, and facility permitting), the siting criteria can be applied either directly or indirectly during the decision making processes. The use of a standard set of siting criteria can add predictability to the siting process for all participants by providing uniformity in the planning and evaluation of proposed facilities. The siting criteria provide the proponent, the regulator, and the community with a rational set of factors on which to judge the attributes (both positive and negative) of a proposed facility.

In the site selection phase, the siting criteria provide the facility developer with a set of guidelines and constraints for screening potential sites for facilities. If the facility developer knows at the outset that the regulators will evaluate the proposed sites using the same set of criteria, the facility developer is less likely to propose a site deemed unacceptable in terms of the criteria. The developer can determine the best site location with respect to achieving the criteria and eliminate locations that are deficient with respect to one or more crucial siting factors, especially those where mitigation measures would be limited, costly, or not feasible. The criteria also provide the facility developer with incentives to blend the proposed facility into existing and future land use patterns. In addition, the siting criteria were developed within the realm of current solid waste and environmental regulations applicable to facility siting, By meeting the criteria the proposed facility may likely encounter fewer problems in the permitting phase of the siting process.

In the site evaluation phase, the siting criteria provide the local land use planner and others with review responsibility, and with a uniform set of criteria for evaluating all proposals. In essence, the criteria act as the model against which all facility proposals can be compared. The criteria will identify pertinent issues which must be specifically addressed in the evaluation of the site and in the environmental impact assessment, particularly with regard to the adequacy of proposed mitigation and the need for additional mitigation. The criteria can also be used as a checklist to determine which issues are likely to be of concern and should be focused on in the public debate over the siting of the facility.

In the site permitting phase, the siting criteria provide the decision-maker with a uniform set of factors on which to base judgments. If the proponent, decision-maker, and the public all view the proposed facility in the same context (i.e., through a uniform set of criteria), then the decisions on the facility will be based on the attributes of the facility and not on emotionalism or arbitrary judgment. By building a rational decision-making process into the facility siting process, facility developers and decision-makers can work with each other rather than against each other.

In the facility permitting process, the regulators will evaluate the facility with respect to established performance criteria (i.e., current regulations). As these are incorporated into the siting criteria, the facility developer's use of the siting criteria will allow him to incorporate the performance criteria into his site selection and facility design decisions.

The siting criteria apply to both informal and formal review and evaluation processes. The selection of a site will likely involve an informal use of the criteria (e.g., preliminary decisions based on visual siting or secondary information), whereas the site evaluation and permitting components will require formal review and evaluation processes in the form of technical studies and preparation of environmental impact analyses. But whether the criteria are applied formally or informally, the siting criteria provide a uniform set of constraints, standards, and guidelines for use in evaluating proposed facilities within a rational decision-making process.

TABLE 6A-1 : Summary of Siting Criteria and Siting Factors

Siting Criteria Objectives	Siting Factors for Each Siting Criteria Objective
A. Protect the residents.	■ Proximity to populations ■ Proximity to airports
B. Ensure the structural stability and safety of the facility.	■ Flood hazard areas ■ Areas subject to tsunamis, seiches, and storm surges ■ Proximity to active or potentially active faults ■ Slope stability ■ Subsidence/liquefaction ■ Dam failure inundation areas
C. Protect surface water.	■ Aqueducts and reservoirs ■ Discharge of treated effluent
D. Protect groundwater.	■ Proximity to supply wells and well fields ■ Depth to groundwater ■ Groundwater monitoring reliability ■ Major aquifer recharge areas ■ Permeability of surficial materials ■ Existing groundwater quality
E. Protect air quality.	■ Prevention of Significant Deterioration (PSD) areas ■ Nonattainment areas ■ Landfill surface emission
F. Protect environmentally sensitive areas.	■ Wetlands ■ Proximity to habitats of threatened and endangered species ■ Agricultural lands ■ Natural, recreational, cultural, and aesthetic resources ■ Significant ecological areas
G. Ensure safe and economic transportation of solid waste.	■ Proximity to areas of waste generation ■ Distance from major transportation routes ■ Structures and properties fronting minor routes ■ Highway accident rate ■ Capacity versus Average Annual Daily Traffic of access route
H. Protect social and economic development goals of the community.	■ Consistency with the General Plan
I. Ensure compliance with federal, state and local requirements	■ Legal considerations

TABLE 6A-1 :
Summary of Siting Criteria and Siting Factors

TABLE 6A-2: Solid Waste Disposal and Alternative Technology Facility Siting Criteria Objectives and Factors

Siting Criteria Objectives	Siting Factors for Each Siting Criteria Objective	Definition of the Siting Factors	Significance of the Siting Factor	Criteria for the Siting Factor
A. PROTECT THE RESIDENTS	Proximity to populations.	**"Proximity to populations"** is defined as the distance from the active portion of the facility to one or more dwellings used by one or more persons as a permanent place of residence, or to structures inhabited by persons temporarily for purposes of work other than daily activity.	Solid waste land disposal/ alternative technology facilities (e.g., conversion technology, transformation) should be located such that the health, safety, and quality of life of nearby residents and other persons are not jeopardized from planned or fugitive air emissions, odors, vectors, fires, noise from facility operations, subsurface migration of potentially harmful substances, and other possible impacts. A host community should consider requiring either a buffer distance or natural or engineered barriers, such as berms, buildings, trees, fences, etc., between solid waste land disposal/ alternative technology facilities (e.g., conversion technology, transformation), and residences.	**All Facilities:** Facility must be in conformance with local land use and zoning requirements of a county or city planning agency. **Land Disposal Facilities:** Los Angeles County prohibits construction of buildings or structures on or within 1,000 feet of a land disposal facility which contains decomposable materials/waste unless the facility is isolated by an approved natural or manmade protection system. The Cities within Los Angeles County may have similar restrictions. **Alternative Technology Facilities (e.g., Conversion Technology, Transformation):** These facilities should be located where the zoning and existing land use are compatible with the proposed use. For example, an abandoned chemical plant site in an industrial district could be considered to be a compatible land use for an alternative technology facility (e.g., conversion technology, transformation).
	Proximity to airports	**"Proximity to airports"** is defined as the distance from the disposal site to the airport runway end used by turbojet and piston-type aircraft.	Land disposal facilities should be located such that the life, health, and safety of aircraft passengers and aircraft staff are not jeopardized from birds getting caught in plane engines.	**Land Disposal Facilities:** Federal and State regulations require new and expansions of existing Class III landfills to be located further than 10,000 feet from airport runways used by turbojet aircraft and further than 5,000 feet from airport runways used solely by piston-type aircraft, unless the owner/operator can demonstrate that the landfill does not pose a hazard to the aircraft due to birds. (Option 1) New and expansions of existing Class III landfills must comply with CCR Title 27 Section 20270 and Code of Federal Regulations Title 40 Section 258.10 which requires these facilities to be located further than 10,000 feet from airport runways used by turbojet aircraft and further than 5,000 feet from airport runways used solely by piston-type aircraft, unless the owner/operator can demonstrate that the landfill does not pose a hazard to the aircraft due to birds. (Option 2)

TABLE 6A-2 : Solid Waste Disposal and Alternative Technology Facility Siting Criteria Objectives and Factors (Cont.)

Siting Criteria Objectives	Siting Factors for Each Siting Criteria Objective	Definition of the Siting Factors	Significance of the Siting Factor	Criteria for the Siting Factor
B. ENSURE THE STRUCTURAL STABILITY AND SAFETY OF THE FACILITY.	Flood hazard areas.	**"Flood hazard areas"** are defined as areas which are prone to inundation by floods having a 100-year return period, and debris flows resulting from major storm events. These areas can be determined by checking the Federal Emergency Management Agency flood insurance maps or with the Los Angeles County Public Works.	Inundation of a solid waste land disposal/ alternative technology facility (e.g., conversion technology, transformation) by flood waters, debris, and/or flash flooding may lead to the physical transport of wastes, possibly impacting water quality and water-dependent species. In addition, flooding interrupts the operation of the facility and could stress leachate handling systems of a land disposal facility.	**All Facilities:** Disposal facilities must comply with requirements of the Federal Clean Water Act, as amended, and local Stormwater/Urban Runoff requirements. **Land Disposal Facilities:** Federal and State regulations require new, existing, and expansions of existing Class III landfills to be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return period. In addition, the landfill must not reduce the flow of a 100-year flood or reduce the temporary storage capacity of the floodplain.
	Areas subject to tsunamis, seiches, and storm surges.	**"Areas subject to tsunamis, seiches, and storm surges"** are defined as areas bordering oceans, bays, inlets, estuaries, or similar bodies of water which may flood due to tsunamis (commonly known as tidal waves), seiches (vertically oscillating standing waves usually occurring in enclosed bodies of water such as lakes, reservoirs, and harbors caused by seismic activity, violent winds, or changes in atmospheric pressure), or storm surges.	Inundation of a facility by flood waters may lead to the physical transport of waste, possibly impacting water quality and water-dependent species. In addition, flooding interrupts the operation of the facility and could stress the leachate handling system of a land disposal facility. Areas subject to tsunamis, seiches, and storm surges include the coastal areas of Los Angeles County. Inland lakes and reservoirs could be subject to seiching and storm surges. Coastal development is heavily restricted by Federal and State regulations, including the California Coastal Act of 1976.	**All Facilities:** Disposal facilities should avoid locating in areas subject to tsunamis, seiches, and storm surges unless designed, constructed, operated, and maintained to preclude failure due to such events.

TABLE 6A-2 : Solid Waste Disposal and Alternative Technology Facility Siting Criteria Objectives and Factors (Cont.)

Siting Criteria Objectives	Siting Factors for Each Siting Criteria Objective	Definition of the Siting Factors	Significance of the Siting Factor	Criteria for the Siting Factor
B. ENSURE THE STRUCTURAL STABILITY AND SAFETY OF THE FACILITY.	Proximity to active or potentially active faults.	**"An active fault"** is defined as a fault along which surface displacement has occurred during Holocene time (about the last 11,000 years) and is associated with one or more of the following: ■ A recorded earthquake with surface rupture ■ Fault creep slippage ■ Displaced survey lines **"A potentially active fault"** is defined as a fault showing evidence of surface displacement during Quaternary time (from the last 11,000 years to about the last 2 to 3 million years) and characterized by the following: ■ Considerable length, e.g., over 30 miles ■ Association with an alignment of numerous earthquake epicenters ■ Continuity with faults having historic displacement ■ Association with youthful major mountain scarps or ranges ■ Correlation with strong geophysical anomalies	The stability of a facility, a major concern for permanent facilities, is related to the potential for movement of the earth along fault zones.	**All Facilities:** All facilities are to be designed and constructed in accordance with the local building code. **Class III Land Disposal Facilities:** Federal and State regulations prohibit the locating a new Class III landfill or a lateral expansion of an existing Class III landfill on a known Holocene Fault.
	Slope stability.	**"Slope stability"** is defined as the relative degree to which the site will be vulnerable to the forces of gravity, such as erosion, landslide, soil creep, earth flow, or any other mass movement of earth material which might cause a breach or carry wastes away from a facility, or inundate the facility.	The long-term containment of solid wastes at a site requires that the site be located in a geomorphic environment which does not encourage long-term instability by the processes of landslides and mass movement. The State of California prohibits the locating of new Class III landfills within areas of potential rapid geological change, including landslides and mass movement, unless containment structures are designed, constructed, and maintained to preclude failure.	**All Facilities:** Facilities located within these areas should have engineered design safety features to assure structural stability.

TABLE 6A-2 : Solid Waste Disposal and Alternative Technology Facility Siting Criteria Objectives and Factors (Cont.)

Siting Criteria Objectives	Siting Factors for Each Siting Criteria Objective	Definition of the Siting Factors	Significance of the Siting Factor	Criteria for the Siting Factor
B. ENSURE THE STRUCTURAL STABILITY AND SAFETY OF THE FACILITY.	Subsidence/Liquefaction.	**"Subsidence"** is defined as a sinking of the land surface following the removal of solid mineral matter or fluids (water or oil) from the rock beneath. "Liquefaction" refers to surface materials that develop liquid properties upon being physically disturbed.	Subsidence of the land may weaken the structural integrity of a facility. Liquefaction can quickly convert soil materials to fluid masses, resulting in the lateral spreading and subsidence of surface materials, and threatening the structural integrity of the facility.	**All Facilities:** Avoid locating in areas determined to have a high potential for failure due to subsidence or liquefaction unless containment structures are designed, constructed, and maintained to preclude failure as a result of such change.
	Dam failure inundation areas.	**"Dam failure inundation areas"** are defined as areas immediately adjacent to a river or stream below an embankment or masonry dam which would be inundated by the flow of water from the impoundment created by the dam if the dam were to fail.	Failures of large U.S. dams in the past 47 years illustrate the potential destruction to natural and manmade features in the danger reach. Dam impoundments have the potential to create a flood hazard which would have the same or worse effects as those associated with flood hazard areas. Dam owners in California are required by the State Office of Emergency Services to prepare and submit dam failure inundation maps to local jurisdictions for use on local land use planning activities.	**All Facilities:** Facilities should be located outside dam failure inundation areas.
C. PROTECT SURFACE WATER.	Aqueducts and reservoirs.	**"Aqueducts"** are defined as conduits for conveying drinking water supplies. "Reservoirs" are defined as impoundments for containing drinking water supplies with minimal natural drainage areas.	Run-off or drainage from a facility could possibly enter aqueducts or reservoirs depending upon a number of factors.	**All Facilities:** Disposal facilities must comply with requirements of the Federal Clean Water Act, as amended, and local Stormwater/Urban Runoff requirements. **Class III Land Disposal Facilities:** Federal and State regulations require new and existing Class III landfills to be fitted with subsurface barriers, as well as precipitation and drainage control facilities.
	Discharge of treated effluent.	**"Discharge of treated effluent"** is defined as the availability of wastewater treatment facilities to accept wastewater (effluent), or the ability to discharge treated effluent, when permitted, directly into a stream, including a dry stream bed, or into the ocean through a State-permitted outfall.	Some facilities will generate a treated effluent requiring discharge to receiving waters. Facilities could discharge to sanitary sewers, with the appropriate regulatory agency requiring adequate pretreatment of wastewaters to a specified level before discharge.	**Facilities Generating Wastewaters:** Facilities should be located in areas with adequate sewer capacity to accommodate the expected wastewater discharge. If sewers are not available, on-site treatment should be considered. Alternately, wastewaters could also be transported in bulk via highways to facilities capable of treating them. Facilities discharging into streams or into the ocean, directly or via storm drains, will require National Pollutant Discharge Elimination System (NPDES) permits issued by the Regional Water Quality Control Board. The NPDES permit sets limitations on the quantity and quality of the waste discharges, and may specify engineering and technical requirements to ensure compliance.
D. PROTECT GROUNDWATER.	Proximity to supply wells and well fields.	**"Proximity to supply wells and well fields"** is defined as the distance to areas used for extraction of groundwater drinking water supplies by high capacity production wells as identified by the presence of several wells that constitute a well field.	Areas that are immediately adjacent to wells and well fields may be extremely susceptible to contamination due to increased gradients and velocities caused by extraction of large volumes of water. An increased risk is associated with locating land disposal facilities in near proximity to existing production wells due to the potential danger of contaminating water.	**Land Disposal Facilities:** Facilities must meet the State of California's geologic setting criteria for ensuring no impairment of beneficial uses of surface water or of groundwater beneath or adjacent to the landfill.

TABLE 6A-2 : Solid Waste Disposal and Alternative Technology Facility Siting Criteria Objectives and Factors (Cont.)

Siting Criteria Objectives	Siting Factors for Each Siting Criteria Objective	Definition of the Siting Factors	Significance of the Siting Factor	Criteria for the Siting Factor
D. PROTECT GROUNDWATER.	Depth to groundwater.	**"Depth to groundwater"** is defined as the minimum seasonal depth to the highest anticipated elevation of underlying groundwater from the bottom of any proposed waste containing facility.	If the water table rises above the bottom of a facility, it may breach the facility liner or foundation and come into direct contact with the waste, causing groundwater contamination to occur.	**Land Disposal Facilities:** For Class III landfills, all containment structures must be capable of withstanding hydraulic pressure gradients to prevent failure due to settlement, compression, or uplift as certified by a registered civil engineer or engineering geologist registered in California. Federal and State regulations require new and expansions of existing Class III landfills to be fitted with containment structures that meet specified permeability standards. In addition, the facility must be fitted with a groundwater collection system and a leachate collection and removal system. Furthermore, facilities must meet the State of California's minimum requirements for ensuring no impairment of beneficial use of surface water or of groundwater beneath or adjacent to the landfill, which also includes location restrictions.
	Groundwater monitoring reliability.	**"Groundwater monitoring reliability"** is the reliability of a scientifically designed monitoring program to measure, observe, and evaluate groundwater quality and flow.	A reliable groundwater monitoring system around a facility is required to provide an early warning detection system for possible contaminant migration within the facility property boundaries. Corrective measures and remedial action are more effective and less expensive if initiated during the early stages of any contaminant migration. To assure that groundwater is reliably monitored, a facility should be located where the following can be characterized, modeled, and analyzed with a relatively high degree of confidence: ■ Subsurface geology ■ Hydrologic characteristics ■ Direction and magnitude of groundwater flow This implies that the site should be geologically and hydrologically uniform.	**Land Disposal Facilities:** Facilities must comply with the California Regional Water Quality Control Board permit requirements for groundwater monitoring.
	Major aquifer recharge areas.	**"Major aquifer recharge areas"** are defined as regions of principal recharge to major regional aquifers, as identified in the existing literature or by hydrogeologic experts familiar with Southern California. Such recharge areas are typically found in: ■ Outcrop or subcrop areas of major water-yielding facies of confined aquifers. ■ Outcrop or subcrop areas of confining units which supply major recharge to underlying regional aquifers.	Aquifers receive their principal water supplies from areas which allow water infiltrating from the land surface to rapidly recharge the aquifer.	**Land Disposal Facilities:** Facilities must meet the State of California's minimum requirements for ensuring no impairment of beneficial use of surface water or of groundwater beneath or adjacent to the landfill, which also includes location restrictions.

TABLE 6A-2 : Solid Waste Disposal and Alternative Technology Facility Siting Criteria Objectives and Factors (Cont.)

Siting Criteria Objectives	Siting Factors for Each Siting Criteria Objective	Definition of the Siting Factors	Significance of the Siting Factor	Criteria for the Siting Factor
D. PROTECT GROUNDWATER	Permeability of surficial materials.	**"Permeability of surficial materials"** is defined as the ability of geologic materials at the earth's surface to infiltrate and percolate water.	The surficial materials overlying major water bearing formations in an area provides a pathway for vertical migration of potential contaminants. Permeable geologic materials can allow rapid movement of pollutants into major regional aquifers. Thick deposits of fine-grained materials of low hydraulic conductivity retard the rate of vertical percolation of pollutants to the groundwater, and provide an opportunity for detection and control of pollutant releases before it contaminates aquifers. Materials having a low permeability tend also to have favorable attenuation characteristics for individual contaminants.	**Land Disposal Facilities:** Federal and State regulations require new and lateral expansions of existing Class III landfill facilities to be underlain by a composite liner, consisting of a lower clay liner and an upper synthetic membrane, and which is of sufficient thickness to prevent vertical movement of fluids including waste and leachate. The lower component of which shall consist of a minimum of two feet of compacted soil/clay with a hydraulic conductivity of no more than 1x10-7 cm/sec. Facilities must meet the State of California's minimum requirements for ensuring no impairment of beneficial use of surface water or of groundwater beneath or adjacent to the landfill, which also includes location restrictions.
	Existing groundwater quality.	**"Existing groundwater quality"** is defined as the chemical quality of the groundwater in comparison to the U.S. Environmental Protection Agency (USEPA) Interim, Primary, and Secondary Drinking Water Standards; and, for constituents with no standards-to-follow guidelines suggested by research and reported in literature.	The significance of the potential impact of a facility on groundwater quality is related to the actual potential use of the groundwater. The USEPA has released guidelines defining protection policies for three classes of groundwater, based on their respective value and their vulnerability to contamination. The three classes are: ■ Class I: Groundwater that is highly vulnerable to contamination and characterized by being irreplaceable or ecologically vital. These are designated as Special Groundwaters. ■ Class II: Current or potential sources of drinking waters having other beneficial uses. ■ Class III: Groundwaters not considered potential sources of drinking water and of limited beneficial use or otherwise contaminated beyond levels that allow cleanup using reasonably employed treatment methods.	**Land Disposal Facilities:** Facilities must meet the California Regional Water Quality Control Board's minimum water quality protection standards and criteria in order to ensure no impairment of the beneficial uses of groundwater beneath or adjacent to the landfill.

TABLE 6A-2 : Solid Waste Disposal and Alternative Technology Facility Siting Criteria Objectives and Factors (Cont.)

Siting Criteria Objectives	Siting Factors for Each Siting Criteria Objective	Definition of the Siting Factors	Significance of the Siting Factor	Criteria for the Siting Factor
E. PROTECT AIR QUALITY.	Prevention of significant deterioration (PSD) areas.	**"Prevention of significant deterioration (PSD)"** areas are defined as areas in attainment of the National Ambient Air Quality Standards (NAAQS) for one or more criteria pollutants. PSD areas are divided into three classes. Class I includes international parks, national wilderness areas exceeding 5,000 acres, national memorial parks exceeding 5,000 acres, and other areas approved by the EPA Administrator. All other areas are classified as Class II.	The prevention of significant deterioration of high quality airsheds is mandatory under the Clean Air Amendments of 1990. Any new source meeting the statutory definition of either a new major source or modification to a major source locating in a PSD area must meet stringent conditions, including the installation of Best Available Control Technology (BACT), before initial construction or major modifications are allowed. Sources required to submit to PSD preconstruction review are: ■ A new major stationary source where the increase in potential to emit is either 100 or 250 tons per year, depending on source category; ■ A significant emission increase of an attainment pollutant at an existing major stationary source; ■ A net emission increase at a major stationary source located within 10 kilometers of a Class I PSD area, if the emission increase would impact the Class I area by 1.0 ug/m3 (24-hour average). The South Coast Air Quality Management District (SCAQMD), through the authority of the USEPA, is managing the PSD program in the South Coast Air Basin. The District's PSD regulations require, among other things, BACT for all stationary sources with a net emission increase of a criteria pollutant.	**All Facilities:** Facilities subject to PSD regulation will be required to submit Federal Title V permit applications to the SCAQMD for preconstruction review and apply BACT. All facilities locating in the South Coast Air Basin will be required to apply BACT for any net emission increase of an attainment criteria air pollutant and demonstrate compliance with all other air quality rules and regulations. **Alternative Technology Facilities (e.g., Conversion Technology, Transformation):** In addition, the SCAQMD is required under Section 42315 of the California Health and Safety Code (H&SC) to perform a health risk assessment and make a determination that no significant increase in illness or mortality is anticipated by a project before issuing or renewing a permit to construct or operate.
Nonattainment areas.	**"Nonattainment areas"** are defined as areas in which the level of one or more of the criteria pollutants (particulates, ozone, nitrogen oxides, sulfur dioxide, carbon monoxide, and lead) exceed the National Ambient Air Quality Standards (NAAQS).	Federal law requires states to implement air pollution control programs to improve or preserve existing air quality in accordance with the NAAQS. Facilities, particularly incinerators, will emit pollutants in quantities which may exceed allowable limits. The South Coast Air Basin is non-attainment for ozone and fine particulates (PM2.5). Facilities emitting nonattainment air contaminants and their precursors, such as volatile organic compounds, nitrogen oxides, and sulfur dioxide, will be subject to New Source Review requirements including application of BACT or Lowest Achievable Emission Rate (LAER). Net cumulative emission increase exceeding certain threshold limits will require the obtaining of offsets to balance the increased pollutant levels.	**All Facilities:** Facilities emitting non-attainment air contaminants will be required to submit permit applications to SCAQMD for preconstruction review, demonstrate compliance with the New Sources Review requirements, as well as the requirements of all other applicable air quality rules and regulations, and obtain a permit to Construct and a Permit to Operate from the SCAQMD. Air pollution control requirements for criteria and toxic air contaminants may vary depending on facility type, process equipment used, and, to a lesser extent, facility location. **Alternative Technology Facilities (e.g., Conversion Technology, Transformation) :** In addition, the SCAQMD is required under Section 42315 of the H&SC to perform a health risk assessment and make a determination that no significant increase in illness or mortality is anticipated by a project before issuing or renewing a permit to construct or operate.

TABLE 6A-2 : Solid Waste Disposal and Alternative Technology Facility Siting Criteria Objectives and Factors (Cont.)

Siting Criteria Objectives	Siting Factors for Each Siting Criteria Objective	Definition of the Siting Factors	Significance of the Siting Factor	Criteria for the Siting Factor
E. PROTECT AIR QUALITY.	Landfill surface emission.	Landfill gases can be generated as a result of organic waste decomposition process. These gases generally consist of methane, carbon dioxide, with small quantities of hydrogen sulfide and carbon chain substances.	Methane gas, produced from the decomposition of organic materials, can be emitted from Class III land disposal facilities without a landfill gas control system.	**Land Disposal Facilities:** Class III land disposal facilities are subject to the SCAQMD rules and regulations. All existing and proposed Class III land disposal facilities must comply with SCAQMD Rule 1150.1 "Control of Gaseous Emissions from Municipal Solid Waste Landfills"; and Title 40, Section 60 of the Code of Federal Regulations "Standard of Performance for Municipal Solid Waste Landfills." These Rules require installation of a landfill gas control system and perimeter monitoring probes, and implementation of a monitoring program to ensure that landfill surface emissions do not exceed specified SCAQMD standards.
F. PROTECTION OF ENVIRONMENTALLY SENSITIVE AREAS.	Wetlands.	**"Wetlands"** are defined as areas, such as saltwater, freshwater, and brackish swamps, marshes, or bogs inundated by surface or groundwater with a frequency to support, under normal circumstances, a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction.	The preservation of wetlands area is critical to preserve a balanced ecosystem. The location of a land disposal facility in a wetlands area could result in the loss of critical habitats, loss of the wetlands for groundwater recharge, and an increase in the potential for pollutant dispersal in ground and surface waters. Wetlands areas are located primarily along the coast and near embayments and estuaries. Development in coastal areas, and wetlands areas in particular, is restricted by Federal and State regulations, including the California Coastal Act of 1976.	**Alternative Technology Facilities (e.g., Conversion Technology, Transformation):** Facilities should avoid locating in current wetlands areas, as defined in adopted general, regional, and State plans, unless: (a) industrial usage is permitted by the local government's land use planning or zoning, and (b) fish, plant, and wildlife resources can be maintained and enhanced in a portion of the site, or preserved elsewhere in the area. **Land Disposal Facilities:** Facilities should be located outside wetland areas, as defined in adopted general, regional, and State plans.
	Proximity to habitats of threatened and endangered species.	**"Habitats of threatened and endangered species"** are defined as areas known to be inhabited permanently or seasonally or known to be critical at any stage in the life cycle of any species of wildlife or vegetation identified or being considered for identification as "endangered" or "threatened" by the U.S. Department of Interior or the State of California.	Threatened and endangered species are important as biological resources because of the irreversibility of species extinction. The loss of such species would seriously interfere with the health of the ecosystem and deter human education and research.	**All Facilities:** A facility should not locate in habitats of threatened or endangered species unless the local land use authority makes a determination that a proposed facility is compatible with the surrounding resources and does not pose a substantial threat to the resource.
	Agricultural lands.	**"Agricultural lands"** are defined as lands zoned countywide and/or used locally for agricultural use.	Farmlands and other agricultural lands are natural and economic resources essential for food production. These lands serve both private and public interests in terms of food, jobs, and open space preservation.	**Land Disposal Facilities:** A facility located in areas zoned for agricultural uses must obtain a local land use permit from the local jurisdiction.
	Natural, recreational, cultural, and aesthetic resources.	**"Natural, recreational, cultural, and aesthetic resources"** are defined as public and private lands having local, regional, state, or national significance, value, or importance. These lands include national, state, regional, county, and local parks and recreation areas, historic and prehistoric resources, wild and scenic rivers, scenic highways, and public and private preservation areas.	Facilities sited in these areas could adversely impact the natural, recreational, cultural, or aesthetic value of the lands.	**All Facilities:** Facilities should avoid locating in these areas unless the applicant can demonstrate that a facility is compatible with the land use in the area.

TABLE 6A-2 : Solid Waste Disposal and Alternative Technology Facility Siting Criteria Objectives and Factors (Cont.)

Siting Criteria Objectives	Siting Factors for Each Siting Criteria Objective	Definition of the Siting Factors	Significance of the Siting Factor	Criteria for the Siting Factor
F. PROTECTION OF ENVIRONMENTALLY SENSITIVE AREAS.	Significant ecological areas.	**"Significant ecological areas"** are defined as areas which possess biotic resources that are uncommon, rare, unique, or critical to the maintenance of wildlife on a federal, state, or countywide basis.	The preservation of significant ecological areas is critical for the protection and preservation of biological resources or for maintaining natural ecosystems.	**All Facilities:** Location of a proposed facility must be in conformance with a local jurisdiction's General Plan and abide by federal and state regulations regarding unique or protected species and their habitat.
G. ENSURE SAFE TRANSPORTATION OF SOLID WASTE.	Proximity to areas of waste generation.	**"Proximity to areas of waste generation"** is defined as travel time from the wasteshed areas to the proposed facility.	The greater the distance between a wasteshed area and a proposed facility will result in the increase of transportation costs; emission of air pollutants; and risk in vehicle accidents. Generators also benefit from shorter travel requirements. Transportation costs can have a marked impact on waste management costs. High transportation costs could possibly induce some generators to use unsafe disposal practices.	**All Facilities:** Facilities should be centrally located near wasteshed areas to minimize potential impacts associated with greater travel distances. Alternate transportation, by rail, may be evaluated in regard to specific sites to be located at distant areas from the wasteshed.
	Distance from major routes.	**"Distance from major routes"** is defined as the distance along a minor route (city street, boulevard, or undivided highway) that a truck must travel to reach the facility after leaving the major route (street or interstate divided highway).	Public concern over a hauler's route is heightened when transportation occurs over roads not constructed for heavy truck traffic, not intended for it, or containing many restrictions such as traffic lights or horizontal and vertical curves. The distance on minor routes should be kept to a minimum to avoid interference with commercial or residential traffic and reduce the risks of accidents.	**All Facilities:** Distance traveled on minor roads should be kept to a minimum. Facilities are best located near an exit of a major route or accessed from major routes via routes used locally for truck traffic. Alternatively, local roads could be upgraded by increasing their load capacity, improving traffic controls, or building truck-only lanes or routes. The facility developer may build a direct access road to avoid the minor route(s).
	Structures and properties fronting minor routes.	**"Structures and properties fronting minor routes"** are defined by the number and type of residences, schools, hospitals, and shopping centers having primary access from the transportation route between the entrance of a facility and the nearest major route.	A great increase in truck traffic, particularly on roads used primarily by cars, may cause considerable noise, congestion, and disruption of normal daily activities.	**All Facilities:** Facilities should be located such that any minor routes from the major route to the facility are used primarily by trucks, and the number of nonindustrial structures (homes, hospitals, schools, etc.) is minimal.
	Highway accident rate.	**"Highway accident rate"** is defined as the occurrence of minor to fatal accidents per vehicle miles traveled, as recorded by the California Department of Transportation.	Accident rates vary significantly by type of road and average annual daily traffic (AADT). Accident rates should, however, be analyzed in conjunction with information about the percentage of truck usage and the design of the road. The accident rate alone should not be used to judge the safety of the highway.	**All Facilities:** The minimum time path from major wasteshed areas to a facility should follow highways with low to moderate average annual daily traffic and accident rates as guided by the research and findings of state, regional, county, and city transportation planners.
	Capacity versus average annual daily traffic (AADT) of access roads.	**"Capacity versus average annual daily traffic (AADT) of access roads"** is defined as the number of vehicles the road is designed to handle versus the number of vehicles it does handle on a daily basis, averaged over a period of one year.	Roads currently handling at or near the maximum number of vehicles should not be considered good routes for the transport of solid waste. Ideally the roads best suited for solid waste transportation are those on which the additional vehicles serving the facility will have little or no impact on the AADT relative to the capacity.	**All Facilities:** The changes in the ratio capacity to AADT should be negligible after calculating the number of trucks on the major and minor routes expected to service the facility.

TABLE 6A-2 : Solid Waste Disposal and Alternative Technology Facility Siting Criteria Objectives and Factors (Cont.)

Siting Criteria Objectives	Siting Factors for Each Siting Criteria Objective	Definition of the Siting Factors	Significance of the Siting Factor	Criteria for the Siting Factor
H. PROTECT THE SOCIAL AND ECONOMIC DEVELOPMENT GOALS OF THE COMMUNITY.	Consistency with the General Plan.	**"Consistency with the General Plan"** is defined as consistency of the proposed facility with the long-term goals of the county or city as expressed by its local planning instruments: the General Plan and implementing ordinances.	"Local Planning" is an ongoing process of directing growth and development in accordance with previously formulated plans, policy document, ordinances, and actions. The State of California requires by law that counties and cities develop a General Plan and implementing ordinances. The Los Angeles County General Plan sets forth policies for the unincorporated areas in the County. This plan was coordinated with the cities in the County and basically reflects the planning efforts of these cities. A General Plan contains policy statements and guidelines reflecting the County's or city's outlook on future growth and development. Zoning ordinances are used as a principal means of implementing the General Plan. Each zone represents a special application of land use regulations and guidelines. This zoning, as required by State law, must be consistent with the adopted General Plan. Consistency between the facility and local planning is necessary to ensure that the facility development will not interfere with the achievement of city or County goals. Preferred sites are usually those that area away from residential areas and areas well-served by utilities.	**All Facilities:** The proposed facility must be consistent with the county or city General Plan. However, the applicant may petition for an amendment to the General Plan. In addition, the proposed facility must be found to be in conformance with the Countywide Sitting Element of the County of Los Angeles. This is accomplished by obtaining a valid Finding of Conformance granted by the Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force.
I. ENSURE COMPLIANCE WITH FEDERAL, STATE AND LOCAL REQUIREMENTS.	Legal Considerations.	**"Legal Considerations"** is defined as statutory, regulatory and other legal requirements such as federal, State, and local minimum standards, permits, liabilities and monitory.	Legal considerations such as federal, state, and local minimum standards and permits, are necessary to ensure proper siting of solid waste facilities, and safeguard the health and safety of the residents.	**All Facilities:** New and lateral expansions of existing disposal facilities shall be required at all times to be in compliance with applicable federal, state and local statutes, permits, minimum operating standards and monitoring requirements.

ATTACHMENT 6-B
LIST OF REGULATORY AGENCIES

TABLE 6B-1 : List of Regulating, Permitting and Responsible Agencies

Agency	Agency Address	Agency Phone/Fax Number	Agency Email Address	Agency Website
		Federal Agencies		
Environmental Protection Agency Region IX	75 Hawthorne Street San Francisco, CA 94105	(415) 947-8000 (866) EPA-WEST (415) 947-3553 (Fax)	r9.info@epa.gov	http://www.epa.gov
United States Army Corps of Engineers Los Angeles District	915 Wilshire Boulevard, Suite 980 Los Angeles, CA 90017	(213) 452-3908/3333 (213) 452-4209 (Fax)	hq-publicaffairs@usace.army.mil	http://www.usace.army.mil
		State Agencies		
Cal EPA (Headquarters)	1001 "I" Street P.O. Box 4025 Sacramento, CA 95812-4025	(916) 323-2514	cepacomm@calepa.ca.gov	http://www.calepa.ca.gov
CalRecycle Los Angeles Branch	5777 W. Century Boulevard, Suite 1555 Los Angeles, CA 90045	(310) 342-6100	Alkarim.Dhanji@CalRecycle.ca.gov	http://www.calrecycle.ca.gov
CalRecycle Long Beach Branch	2929 East Willow Street Long Beach, CA 90806	(562) 981-9295	Jeffrey.Taylor@CalRecycle.ca	http://www.calrecycle.ca.gov/
California Department of Fish and Wildlife South Coast Region	3883 Ruffin Road San Diego, CA 92123	(858) 467-4201 (858) 467-4299 (Fax)	AskR5@wildlife.ca.gov	http://www.dfg.ca.gov/regions/5/
State Water Resources Control Board	1001 "I" Street Sacramento, CA 95814	(916) 323-2514	info@waterboards.ca.gov	http://www.swrcb.ca.gov
California Air Resources Control Board	1001 "I" Street P.O. Box 2815 Sacramento, CA 95812	(916) 322-2990 (916) 445-5025 (Fax)	helpline@arb.ca.gov	http://www.arb.ca.gov
California Coastal Commission South Central Coast District Office	89 South California Street, Suite 200 Ventura, CA 93001-2801	(805) 585-1800 (805) 641-1732 (Fax)	mfrum@coastal.ca.gov	http://www.coastal.ca.gov
California Energy Commission	1516 Ninth Street, MS-29 Sacramento, CA 95814-5512	(844)217-4925	renewable@energy.state.ca.us	http://www.energy.ca.gov
		Regional Agencies		
California Regional Water Quality Control Board Los Angeles Office	320 West 4th Street, Suite 200 Los Angeles, CA 90013	(213) 576-6600 (213) 576 6640 (Fax)	Info4@waterboards.ca.gov	http://www.waterboards.ca.gov/losangeles
California Regional Water Quality Control Board Lahontan Regional Board - Victorville Office	14440 Civic Drive, Suite 200 Victorville, CA 92392	(760) 241-6583 (760) 241-7308 (Fax)	Info4@waterboards.ca.gov	http://www.swrcb.ca.gov/lahontan
South Coast Air Quality Management District	21865 Copley Drive, Diamond Bar CA 91765	(909) 396-2000 (800) CUT-SMOG (288-7664)	webinquiry@waterboards.ca.gov	http://www.aqmd.gov
Antelope Valley Air Quality Management District	43301 Division Street, Suite 206 Lancaster, CA 93535	(661) 723-8070 (661) 723-3450 (Fax)	perpNotify@avaqmd.ca.gov	http://www.avaqmd.ca.gov

TABLE 6B-1: List of Regulating, Permitting and Responsible Agencies (Cont.)

Agency	Agency Address	Agency Phone/Fax Number	Agency Email Address	Agency Website
CalRecycle Local Enforcement Agencies				
Sunshine Canyon Landfill	14747 San Fernando Road Sylmar, CA 91342	(818) 362-2106	david.thompson@lacity.org gvillalobos@ph.lacounty.gov	http://www.scllea.org/
City of Los Angeles Environmental Affairs Department	200 North Spring Street, Room 1905 MS 177 Los Angeles, CA 90012	(213) 978-0864 (213)253-3932	wayne.tsuda@lacity.org	http://www.lacity.org/ead/environmentla/
City of Vernon Health Department	4305 South Santa Fe Avenue Vernon, CA 90058	(323) 583-8811	webmaster@ci.vernon.ca.us	http://www.cityofvernon.org
City of West Covina Waste Management Enforcement Agency	1444 West Garvey Avenue South, Room 316 West Covina, CA 91790	(626) 939-8411 (626) 939-8400	Steve.Samaniego@westcovina.org	http://www.westcovina.org
Los Angeles County Department of Public Health Environmental Health	5050 Commerce Drive Baldwin Park, CA 91706	(626) 430-5200 (626) 813-3000 (Fax)	ehmail@ph.lacounty.gov	http://www.lapublichealth.org
Local Agencies				
Los Angeles County Solid Waste Management Committee/ Integrated Waste Management Task Force	900 South Fremont Avenue, 3rd Floor Annex Alhambra, CA 91803-1331	(626) 458-3585 (626) 979-5390(Fax)	taskforce@ladpw.org	http://www.ladpw.org/epd/tf/
Los Angeles Regional Agency	1149 South Broadway Street Los Angeles, CA 90015	(213) 485-3692, 3676 or 3698 (213) 458-3671 (Fax)	Nady.Maechling@lacity.org, Joe.Maturino@lacity.org, Karen.Coca@lacity.org	https://www.laregionalagency.com/
County of Los Angeles Agencies				
Los Angeles County Public Works	900 South Fremont Avenue Alhambra, CA 91803-1331	(626) 458-5100	info@dpw.lacounty.gov	http://www.ladpw.org/
Los Angeles County Department of Public Health Environmental Health	5050 Commerce Drive Baldwin Park, CA 91706	(626) 430-5200 (626) 813-3000 (Fax)	ehmail@ph.lacounty.gov	http://www.lapublichealth.org
Los Angeles County Department of Regional Planning	320 West Temple Street Los Angeles, CA 90012	(213) 974-6411 (213) 626-0434 (Fax)	zoningldcc@planning.lacounty.gov	http://planning.co.la.ca.us/
City Agencies				
Incorporated Cities	Contact appropriate cities for their respective local agencies.			

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

21865 Copley Drive, Diamond Bar, CA 91765-4182
Information: 1-800-CUT-SMOG (1-800-288-7664)
Internet: http://www.aqmd.gov

Air Quality Reporting

Since 1977, the South Coast Air Quality Management District has served as the local government agency responsible for measuring, reporting and taking steps to improve air quality.

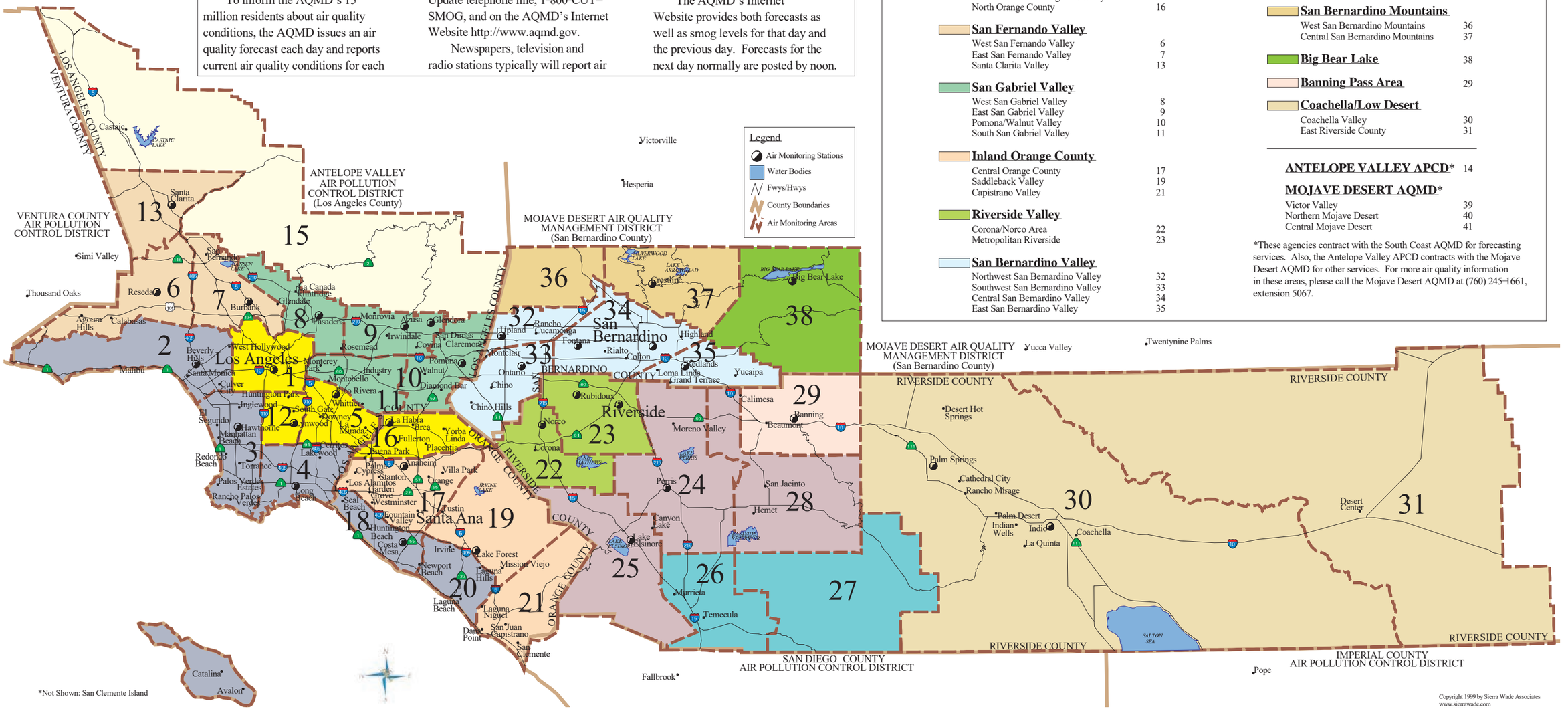
To inform the AQMD's 15 million residents about air quality conditions, the AQMD issues an air quality forecast each day and reports current air quality conditions for each numbered Monitoring Area and General Forecast Area depicted here.

This air quality information is transmitted to the public through newspapers, television, radio and pager services, through faxes to schools, through recorded messages on the AQMD's toll-free Smog Update telephone line, 1-800-CUT-SMOG, and on the AQMD's Internet Website http://www.aqmd.gov.

Newspapers, television and radio stations typically will report air quality information using the General Forecast Areas, shown in color below, which are larger groupings of the more specific Air Monitoring Areas.

The 1-800-CUT-SMOG (1-800-288-7664) line also provides smog forecast and current smog level information by ZIP code.

The AQMD's Internet Website provides both forecasts as well as smog levels for that day and the previous day. Forecasts for the next day normally are posted by noon.



*Not Shown: San Clemente Island

General Forecast Areas & Air Monitoring Areas

Coastal

Northwest Los Angeles County Coastal	2
Southwest Los Angeles County Coastal	3
South Los Angeles County Coastal	4
North Orange County Coastal	18
Central Orange County Coastal	20

Metropolitan

Central Los Angeles County	1
Southeast Los Angeles County	5
South Central Los Angeles County	12
North Orange County	16

San Fernando Valley

West San Fernando Valley	6
East San Fernando Valley	7
Santa Clarita Valley	13

San Gabriel Valley

West San Gabriel Valley	8
East San Gabriel Valley	9
Pomona/Walnut Valley	10
South San Gabriel Valley	11

Inland Orange County

Central Orange County	17
Saddleback Valley	19
Capistrano Valley	21

Riverside Valley

Corona/Norco Area	22
Metropolitan Riverside	23

San Bernardino Valley

Northwest San Bernardino Valley	32
Southwest San Bernardino Valley	33
Central San Bernardino Valley	34
East San Bernardino Valley	35

Hemet/Elsinore Area

Perris Valley	24
Lake Elsinore	25
Hemet/San Jacinto Valley	28

Temecula/Anza Area

Temecula Valley	26
Anza Area	27

San Gabriel Mountains 15

San Bernardino Mountains

West San Bernardino Mountains	36
Central San Bernardino Mountains	37

Big Bear Lake 38

Banning Pass Area 29

Coachella/Low Desert

Coachella Valley	30
East Riverside County	31

ANTELOPE VALLEY APCD* 14

MOJAVE DESERT AQMD*

Victor Valley	39
Northern Mojave Desert	40
Central Mojave Desert	41

*These agencies contract with the South Coast AQMD for forecasting services. Also, the Antelope Valley APCD contracts with the Mojave Desert AQMD for other services. For more air quality information in these areas, please call the Mojave Desert AQMD at (760) 245-1661, extension 5067.

FIGURE 6B-1:
South Coast Air Qualilty Management District Map

FIGURE 6B-2 : Regional Water Quality Control Board Jurisdiction Map

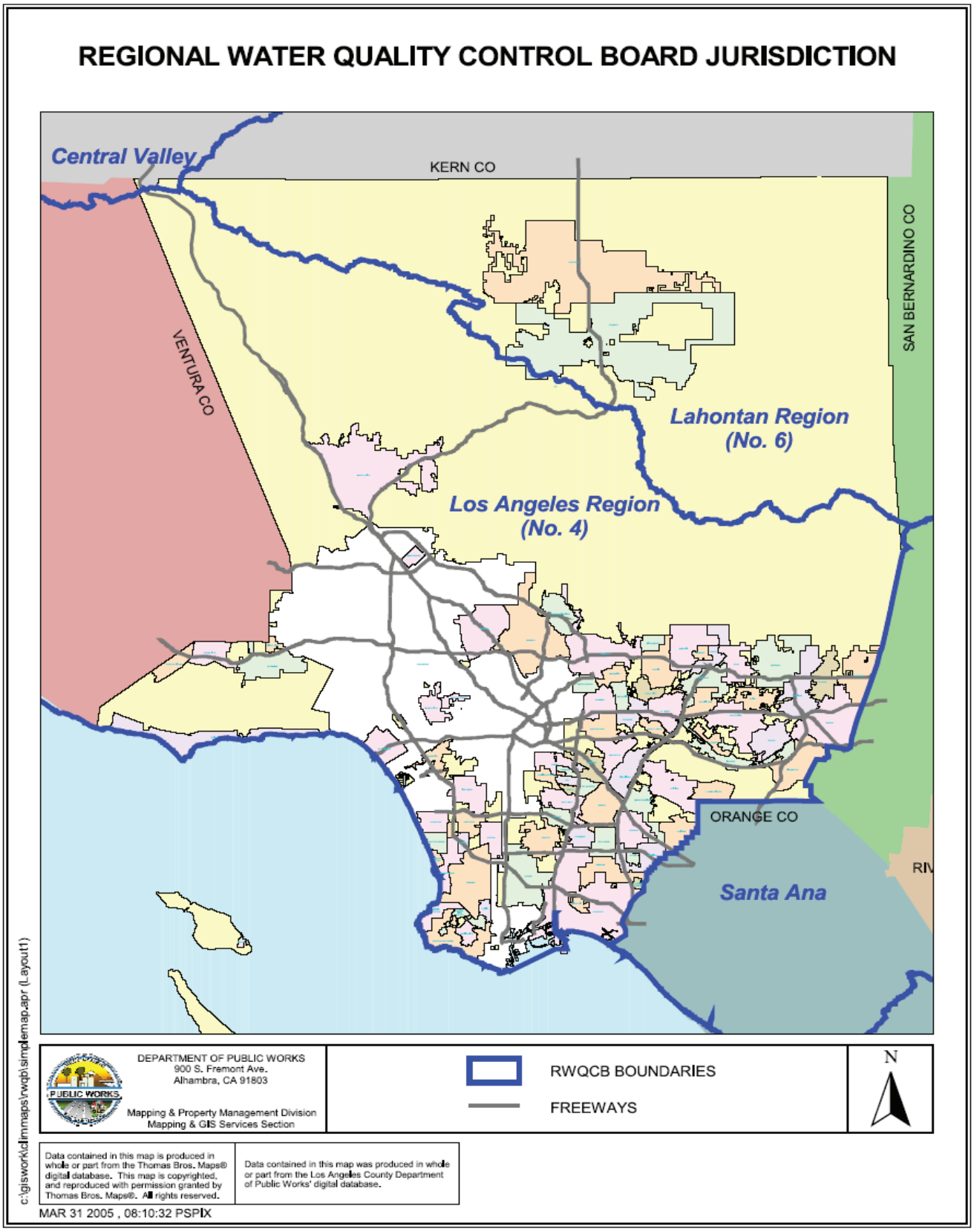
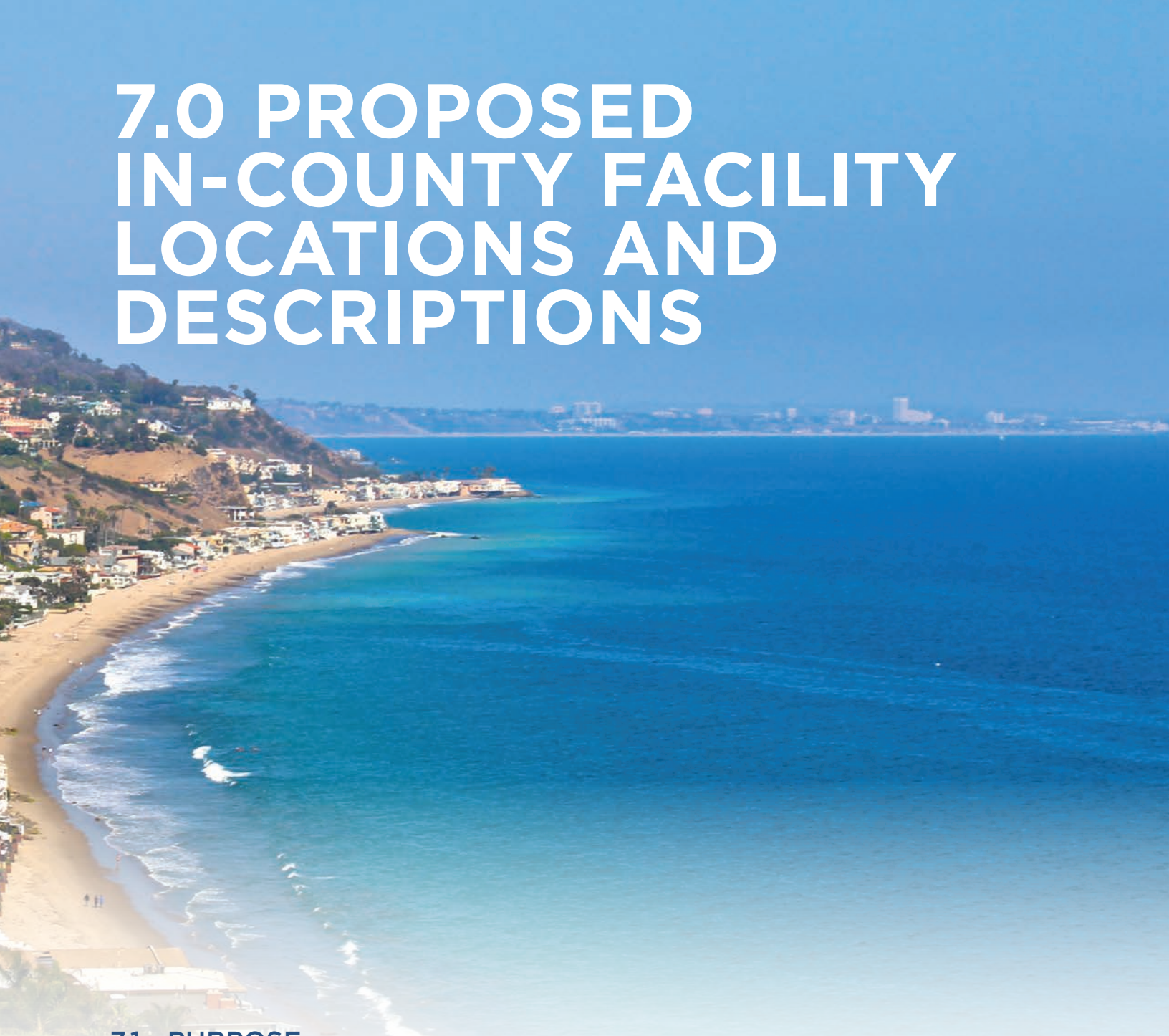


FIGURE 6B-2 :
Regional Water Quality Control Board Jurisdiction Map

7

Proposed In-County Facility Locations And Descriptions

7.0 PROPOSED IN-COUNTY FACILITY LOCATIONS AND DESCRIPTIONS



7.1 PURPOSE

The purpose of this Chapter is to present a description and a location map of sites identified: (1) as potentially suitable for development of new Class III landfills, permitted inert waste landfills, and alternative technology facilities (e.g., conversion technology, transformation); and (2) as potential expansions of existing Class III landfills, inert waste landfills, and transformation facilities, where applicable.

The contents of this Chapter that are drawn from California Code of Regulations (CCR), Title 14, Division 7, Chapter 9, Article 6.5, Sections 18755 to 18756.1, are discussed in Section 7.3.

7.2 DEFINITIONS

Definitions of key terms used in this Chapter are included when referenced. For a more complete listing of acronyms and definitions, please refer to the List of Acronyms and Glossary of Terms at the beginning and end of this document, respectively.

Key Terms

Expansion
Refers to a solid waste facility which has: (1) an increase in the physical dimension of the facility; (2) an increase in the permitted daily disposal rate, throughput, or intake/processing capacity; (3) an extension or renewal of a permit whose expiration date may affect the operation of the facility, whichever is applicable; and/or (4) any permitted activity that results in an increase in permitted disposal capacity. For a landfill, 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 (at any depth) in which solid waste may be disposed to areas contiguous or adjacent to the area of the existing operation.

7.3 SPECIFIC REQUIREMENTS

CCR, Title 14, Section 18756.1 requires the following:

(a) The 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 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 United States Geological Survey 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 CCR and is consistent with the diversion goals of PRC Section 41780.

7.4 INTRODUCTION

In Los Angeles County (County), no Class III landfills have been identified for potential **expansion**. No site has been identified for potential development of new Class III or inert waste landfills. Additionally, there is no proposal to develop new or expand the existing transformation facility. However, the County and the City of Los Angeles are considering proposals to develop new alternative technology facilities (e.g., conversion technology and transformation) in the County.

The siting of any type of solid waste facility, including Class III landfills and transformation facilities, in the County, is a complex undertaking, involving public and private ownership and/or operation of the facilities; multi-agency regulations; and regional versus local considerations. This task continues to be increasingly more difficult in light of increasing public opposition, in addition to the complex and lengthy permitting process.

Prior to development of any of these facilities the project proponent must:

- Undertake a vigorous site-specific assessment for the proposed project.
- Address all environmental concerns as mandated by the California Environmental Quality Act (CEQA).
- Demonstrate that the project is consistent with the applicable local jurisdiction's General Plan and/or land use permitting/zoning requirements.
- Demonstrate that the project is in conformance with the Los Angeles County Countywide Siting Element (CSE) and its Siting Criteria by obtaining a Finding of Conformance (FOC) from the Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force (Task Force). The FOC process is discussed in **Chapter 10**, and the Siting Criteria is specified in **Chapter 6**.
- Satisfy the permitting requirements of local, State, and Federal agencies with jurisdiction over the project.

7.5 CLASS III LANDFILLS

7.5.1 Potential New Class III Landfills

In the previous CSE (dated June 1997), two sites located in the unincorporated County (Elsmere and Blind Canyons) were identified for potential development of new Class III landfills. However, on September 30, 2003, the County Board of Supervisors unanimously adopted a motion to remove these sites from the CSE's list of potential new landfills. As a result, this CSE does not identify any site for development of new Class III landfills in the County.

7.5.2 Potential Expansions of Existing Class III Landfills

In the previous CSE (dated June 1997), six Class III landfill sites in the County (Antelope Valley, Chiquita Canyon, Lancaster, Puente Hills, Scholl Canyon, and Sunshine Canyon) were identified as sites for potential expansion of existing Class III landfills. Of these sites, Antelope Valley, Chiquita Canyon, Lancaster, Puente Hills, and Sunshine Canyon landfills subsequently expanded and all are currently operational or fully permitted with the exception of Puente Hills Landfill.

The study consisted of a written survey of all permitted solid waste disposal facilities and a review of solid waste disposal facility permitting data, including permits issued by local land use agencies, local enforcement agencies, California Regional Water Quality Control Boards, and the Department of Resources Recycling and Recovery (CalRecycle).

Currently, no existing Class III landfill owner/operator has filed an application for future landfill expansion within this planning period.

The County must be proactive and develop innovative policies and procedures for managing waste that further reduce the County's reliance on landfills.

7.6 INERT WASTE LANDFILLS

The current classification of inert waste landfills is primarily governed by the State's Construction and Demolition Waste and Inert Debris Disposal Regulatory Requirements (C&D Regulations), Title 14 of CCR, Sections 17387 through 17390. These regulations have placed inert waste landfills into four regulatory tiers, namely, Full SWFP, Registration Permit, Enforcement Agency (EA) Notification, and Excluded Operation. However, pursuant to these regulations, only inert waste landfills falling under the full SWFP and registration permit tiers are considered "permitted" disposal facilities.

There were 11 inert waste landfills in the County in 2018. The inert waste landfills and their current classification under the C&D regulations are listed in **Chapter 3** on **Table 3-2**. Only Azusa Land Reclamation is under the Full SWFP tier. Nine of the inert waste landfills are currently classified under the EA Notification tier (as Inert Debris Engineered Fill Operations). There are two inert waste landfills that are unclassified and have no form of permit.

7.6.1 Potential New Inert Waste Landfills

No site has been identified for potential development of new inert waste landfills in the County within this planning period.

7.7 TRANSFORMATION FACILITIES

Transformation technologies have been identified as an effective means to divert solid waste from landfills. As a result, transformation facilities remain as a valid solid waste disposal alternative in the County.

For the purpose of this Chapter, transformation facilities only refer to Commerce Refuse-to-Energy Facility in the City of Commerce (closed as of June 2018) and the Southeast Resource Recovery Facility in the City of Long Beach.

7.7.1 Potential New Transformation Facilities

No site has been identified for potential development of new transformation facilities in the County for this planning period.

7.7.2 Potential Expansions of Existing Transformation Facilities

Currently, there are no proposed expansions of existing transformation facilities in the County; therefore, no such facilities have been identified in the CSE.

7.8 ALTERNATIVE TECHNOLOGY FACILITIES

In order to encourage the development of alternative technology facilities (e.g., conversion technology), the County is working with the Alternative Technology Advisory Subcommittee (ATAS) of the Task Force to investigate and promote conversion technologies, including actively pursuing the development of one or more demonstration facilities in Southern California.

This process began with Phase I, in which the County and ATAS conducted a preliminary evaluation, screening, and ranking of conversion technology companies and identification of material recovery facilities and transfer stations (MRF/TS) that could potentially host a conversion technology facility. The findings resulted in the development of the "Los Angeles County Conversion Technology Evaluation Report" (Phase I Report), adopted by the Task Force in 2005.

Phase II consisted of a detailed evaluation of selected technologies and MRF/TS sites. The Task Force also adopted the "Conversion Technology Evaluation Report, Phase II – Assessment" in 2007, which identifies four viable conversion technology suppliers and four suitable locations for potential development of a demonstration project. Following Phase II, Public Works issued a Request for Offers in 2008 to the recommended companies and sites, which resulted in the establishment of three public-private project development teams that connected a conversion technology company with a local MRF operator and site owner.

On April 20, 2010, the County Board of Supervisors unanimously approved three Memorandums of Understanding (MOUs) for three conversion technology demonstration projects and awarded a contract for consultant services for Phase III and Phase IV of the Southern California Conversion Technology Demonstration Project to develop alternatives to landfills within the County. At their hearing on April 20, 2010, the Board of Supervisor also instructed the Director of Public Works, in coordination with appropriate stakeholders, to assess the feasibility of developing a conversion technology facility at one or more County landfills, identify other potentially suitable sites within the County, and report back Public Works' findings to the Board of Supervisors in six months.

In October 2010 Public Works submitted a preliminary siting assessment in response to this request and committed to providing the Board with a status report every six months. Potential host sites for conversion technology facilities were submitted to the County. These sites are discussed in the "Los Angeles County Conversion Technology Project, Preliminary Siting Assessment," submitted to the Board of Supervisors on October 20, 2010 (See Appendix 5A).

During Phase IV, the County will work with various key stakeholders that include cities solid waste facility owners and operators, and conversion technology companies to encourage development of mutually beneficial projects within the County. Similar to the Phase III demonstration projects, the County would support the Phase IV project by providing technical assistance of a consultant contract and assistance with permitting, grant, and loan procurement, while maximizing private-sector investment.

7.8.1 Potential New Alternative Technology Facilities

The Conversion Technology Evaluation (CTE) Report recommends co-locating conversion technology facilities at materials recovery facilities and transfer stations due to numerous benefits of co-location such as readily available feedstock, pre-processing capacity, appropriate zoning, potential land availability, and transportation avoidance.

The CTE Report also recommended the development of a conversion technology demonstration facility co-located with a material recovery facility in Southern California; and identified conversion technology suppliers and material recovery facilities (MRFs) that would be suitable to carry out this task. It is anticipated that a successful operation of this demonstration facility will encourage the development of other conversion technology projects.

The CTE Report recommends siting conversion technology facilities in industrial zones. The City of Los Angeles is also investigating the development of a number of alternative technology facilities that may be sited at MRFs. The RENEW LA plan recommends alternative technology projects (e.g., conversion technology) be sited in industrial zones of the City of Los Angeles and for the City of Los Angeles to revise its zoning ordinance to allow alternative technology facilities (such as conversion technology) by right in all M-2 (light industrial) and M-3 (heavy industrial) zones with conditions. Information regarding the RENEW LA Plan can be found in the fact sheets located in **Chapter 5 Appendix 5B**. For additional information on the plan, visit http://www.socalconversion.org/resources.

As previously indicated, potential host sites for conversion technology facilities were submitted to the County. These sites are discussed in the "Los Angeles County Conversion Technology Project, Preliminary Siting Assessment," submitted to the Board of Supervisors on October 20, 2010. In subsequent updates to the Board, additional sites were added to the list.

This Chapter also includes a map (**Map 7-1**) showing areas that are potentially suitable for locating alternative technology facilities (e.g., conversion technology). These are areas within the incorporated cities and unincorporated County with land use categories of: (1) light industrial category (e.g., light industrial, limited manufacturing, etc.); (2) heavy industrial category (e.g., heavy industrial, light manufacturing, heavy manufacturing, general manufacturing, etc.); (3) miscellaneous industrial category (e.g., landfill, solid waste disposal, quarry zone, etc.); (4) utilities category (e.g., recycling center, etc.); and (5) general industrial category (e.g., industrial, light and heavy manufacturing, etc.). These areas are generally suitable for siting major MRFs and TSs and, therefore, may be suitable for co-locating a conversion technology facility.

The City of Los Angeles is also evaluating the potential siting of a number of alternative technology facilities capable of processing post-source separated municipal solid waste. The City Council's RENEW LA plan calls for the development of seven alternative technology facilities, six within the City's boundaries and one in the local region. The City of Los Angeles Municipal Code has been amended to allow alternative technology facilities to be sited in the M-2 (light industrial), M-3 (heavy industrial), and PF (public facilities) zones by conditional use

The fact that an area or location is identified in this CSE as potentially suitable for siting an alternative technology facility (e.g., conversion technology) does not automatically mean that an alternative technology facility will be sited at that area or location. Designation and approval of the land use to locate an alternative technology facility at any of the locations and areas identified in **Table 7-1** and **Map 7-1** ultimately lie with the governing local land use authority. Moreover, any alternative technology facility project to be located at any of the sites or areas must comply with the requirements listed in Section 7.4 above.

7.8.2 Potential Expansions of Alternative Technology Facilities

Currently, there are no existing alternative technology facilities (e.g., conversion technology) in the County; therefore, no proposed expansions have been identified in this CSE.

7.9 ENGINEERED MUNICIPAL SOLID WASTE CONVERSION FACILITY

There are no existing or proposed new engineered municipal waste (EMSW) conversion facilities in the County; therefore, EMSW conversion facilities are not discussed in this Chapter.

TABLE 7-1: Proposed Potential Locations for Alternative Technology Facilities in Los Angeles County

No.	Stakeholders	Site Name [Site Operation]	Site Location	Site Owner	Site Zoning	Site Acreage (acres)	Proposed Capacity (tpd-6)
1	City of Carson Public Works	City of Carson Public Works Yard	2400 East Dominguez Street Carson, CA 90810	City of Carson	Industrial	N/A[1]	N/A
2	City of Santa Monica Public Works	Santa Monica Pier	200 Santa Monica Pier, Santa Monica, CA 90401	City of Santa Monica	Industrial	~0.25	N/A
3	City of Santa Monica Public Works	Santa Monica Airport	3223 Donald Douglas Loop S, Santa Monica, CA 90405	City of Santa Monica	Industrial	1-3	N/A
4	City of Santa Monica Public Works	City of Santa Monica Public Works Corps Yard	2500 Michigan Avenue, Santa Monica, 90404	City of Santa Monica	Industrial	~0.50	N/A
5	City Terrace Recycling LLC	N/A	1525 Fishburn Ave Los Angeles, CA 90063	Robert M. Arsenian	Industrial	1.1	N/A
6	CR&R	CR&R Catalina	1 Dump Road, Avalon, CA 90704	City of Avalon	Industrial	+/- 10	10 - 20
7	Interior Removal Specialists, Inc.	N/A	8990 Atlantic Ave., South Gate, CA 90280	CARERNCAR LLC	Industrial	1-2	100 - 500
8	Shell Oil Products US	Carson Revitalization Project	20945 S Wilmington Ave Carson, CA 90810	Shell Oil Company	Industrial	15	1300
9	Waste Resources Recovery, Inc.	N/A	357 W. Compton Blvd Gardena, CA 90248	Waste Resource Recovery, Inc.	Industrial	0.3	50

Notes:

1 N/A means information is not currently available.

Map 7-1: Areas Potentially Suitable for Siting Alternative Technology Facilities in Los Angeles County

Kern County

San Bernardino County

Ventura County

Orange County

Riverside County

Lancaster

Burbank

Glendale

Pasadena

Alhambra

El Monte

West Covina

Pomona

Los Angeles

Santa Monica

Inglewood

South Gate

Whittier

Downey

Compton

Norwalk

Lakewood

Torrance

Carson

Long Beach

Avalon

Santa Catalina Island

San Clemente Island

*Not to scale nor at true location.

Public Works
LOS ANGELES COUNTY

N

0 10 miles

This map is for planning or diagraming purposes only. Los Angeles County expressly disclaims any liability for any inaccuracies which may be present in this map.

Source: Southern California Association of Governments, (Dec. 2014)

Legend

- General Industrial
- Heavy Industrial (e.g. manufacturing)
- Light Industrial (e.g. commercial, industrial)
- Miscellaneous Industrial (e.g. landfills, quarry zone)
- Utilities Categories (e.g. recycling centers)
- Public Facilities

- Interstate
- State Route
- US Highway
- Rail

Public Works
LOS ANGELES COUNTY

Map 7-1:
Areas Potentially Suitable for Siting Alternative Technology Facilities in Los Angeles County

8

General Plan Consistency

8.0 GENERAL PLAN CONSISTENCY

8.1 PURPOSE

The preceding chapters discussed and/or identified areas for the location of potential new Class III landfills, inert waste landfills, alternative technology facilities (e.g., conversion technology, transformation), and potential expansions of existing facilities in Los Angeles County (County) that will be necessary to meet the disposal needs of the County during the 15-year planning period. The sites identified in the Los Angeles County Countywide Siting Element (CSE) may or may not be consistent with the General Plan of the sites' respective local jurisdiction. The purpose of this Chapter is to provide information on the consistency of the sites listed in Chapter 7 of the CSE with the appropriate local jurisdiction's General Plan.

The contents of this Chapter are drawn from California Code of Regulations (CCR), Title 14, Division 7, Chapter 9, Article 6.5, Section 18756.3, and discussed in Section 8.3 of this Chapter.

8.2 DEFINITIONS

Definitions of key terms used in this Chapter are included when referenced. For a more complete listing of acronyms and definitions, please refer to the List of Acronyms and Glossary of Terms at the beginning and end of this document, respectively.

There are no new proposed Class III landfills in the County.

Key Terms

Class III Landfill
Refers to a land disposal site. Class III landfills are only permitted to accept nonhazardous solid waste materials where site characteristics and containment structures isolate the solid waste from the waters of the State. The land disposal site must meet the requirements of the Federal Resource Conservation and Recovery Act, Subtitle D; CCR, Title 14, Sections 17000 et seq.; and other regional and local rules and regulations.

Inert Waste Landfill
Refers to landfills that accept inert waste. CCR, Title 14, Section 18720 (32) defines inert waste as "a non-liquid solid waste including, but not limited to, soil and concrete, that does not contain hazardous waste or soluble pollutants at concentrations in excess of applicable water-quality objectives established by a regional water quality board pursuant to division 7 (commencing with section 13000) of the California Water Code (CWC) and does not contain significant quantities of decomposable solid waste."

Key Terms

Alternative Technology
Refers to a technology, such as conversion technology, transformation, EMSW conversion, or other emerging technologies, capable of processing solid waste, in lieu of landfill disposal. disposed to areas contiguous or adjacent to the area of the existing operation.

Expansion
Refers to a solid waste facility which has: (1) an increase in the physical dimension of the facility; (2) an increase in the permitted daily disposal rate, throughput, or intake/processing capacity; (3) an extension or renewal of a permit whose expiration date may affect the operation of the facility, whichever is applicable; and/or (4) any permitted activity that results in an increase in permitted disposal capacity. For a landfill, 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 (at any depth) in which solid waste may be disposed to areas contiguous or adjacent to the area of the existing operation.

8.3 SPECIFIC REQUIREMENTS

CCR, Title 14, Section 18756.3 requires the following:

(a) Reserved areas for proposed new or the expansion of existing solid waste disposal facilities shall be identified in the Siting Element. Verification shall be made that the expanded or proposed facilities are located in areas where the land use is designated or authorized for solid waste disposal facilities and that the areas are consistent with the applicable city and county general plans. Verification of general plan consistency shall include a resolution, notarized statement, or affidavit from each applicable city and county. Proposed areas that are consistent with the current city and county general plans shall be reserved pursuant to the requirements of Public Resources Code (PRC) Sections 41702 and 41720.

(b) Proposed areas that are not situated in, coextensive with, or adjacent to an area authorized for land use as a solid waste disposal facility, within an applicable city and county general plan, may be "tentatively reserved" for future or expanded solid waste disposal facilities. Proposed areas that are inconsistent with applicable city and county general plans shall be tentatively reserved pursuant to the requirements of PRC Sections 41710 through 41712.

(c) Proposed areas included in the Siting Element may be identified as "tentatively reserved" in the initial filing of a Countywide and Region-wide Integrated Waste Management Plan, as determined by PRC Section 41791. However, by the first five-year revision of the Countywide and Region-wide Integrated Waste Management Plan all areas identified to assure the minimum of 15 years of combined permitted disposal capacity as described in CCR 18755(a) of this article must meet the requirements of PRC Section 41702.

State law requires all cities and counties to adopt a General Plan in order to regulate the use of land within their boundaries. General Plans typically consist of text and maps designating broad areas for such basic uses as residential, commercial, industrial, agricultural, etc. The General Plan typically describes the purpose of each area, principal permitted uses, and uses allowed by a Land Use Permit (LUP). The local jurisdiction in which a proposed project is located determines the project's consistency with the General Plan.

Under a local jurisdiction's General Plan, the LUP/Conditional Use Permit (CUP) process allows the local jurisdiction 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. The local jurisdiction can also use this type of General Plan provision to require the modification of an existing use permit should an existing land use be modified. Thus, the siting of these facilities is subject to the land use regulations (i.e., General Plan, Zoning, and LUPs) of local jurisdictions on which the CSE must rely to be implemented. It is during this land use permitting process that local jurisdictions make a determination regarding General Plan consistency for a site and/or area for which detailed descriptions have been provided.

However, PRC sets forth a separate definition for General Plan consistency for the purpose of identifying areas in a siting element considered "reserved" or "tentatively reserved" for potential new facilities and/or expansion of the existing facilities.

Section 41702 of 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 California 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 facilities is compatible with the establishment or expansion of the solid waste facility.

Therefore, sites and/or areas identified in **Chapter 7** of the CSE as potentially suitable for development of new and/or expansion of existing class III landfills, inert waste landfills, and alternative technology facilities (e.g., conversion technology, transformation) 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 sites and/or areas are considered "tentatively reserved" and not consistent with the local jurisdiction's General Plan.

8.4 RESERVED SITES

8.4.1 Class III Landfills

There are no proposed new (or expansions of existing) Class III landfills in the County.

8.4.2 Inert Waste Landfill

There are no proposed or expansion of existing permitted inert waste landfill in the County.

8.4.3 Transformation Facilities

Currently, there are no proposed new or expansions of existing transformation facilities in the County.

8.4.4 Alternative Technology Facilities

As discussed in **Chapter 7** (Section and 7.8.2), aside from the two transformation facilities, CREF and SERRF, there are no other existing alternative technology facilities (e.g., conversion technology) in the County. However, in order to encourage the development of alternative technologies, the County is working with the Alternative Technology Advisory Subcommittee of the Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force to investigate the feasibility and promote conversion technologies, including actively pursuing the development of one or more demonstration facilities in Southern California.

It should be noted that, at this time, the regulatory status of conversion technologies is still uncertain due to lack of legislative clarification on which conversion technologies should be categorized as solid waste disposal facilities, or need to be included and listed in a CSE.

Additionally, there are currently no "reserved" alternative technology facility sites identified in the CSE.

A detailed discussion of alternative technologies (including conversion technologies) is included in **Chapter 5 ("Alternative Technologies")** of the CSE.

Key Terms

Reserved Site
Refers to a site/area identified as potentially suitable for development of new and/or expansion of existing Class III landfills, inert waste landfills, and alternative technology facilities (e.g., conversion technology, transformation) 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 as a solid waste disposal site is listed among potential uses for the area in the local jurisdiction's General Plan. Otherwise, the identified sites and/or areas are considered "tentatively reserved" and not consistent with the local jurisdiction's General Plan.

8.5 TENTATIVELY RESERVED SITES

PRC Section 41710(a) stipulates that "A county may tentatively reserve an area or areas for the location of a new solid waste transformation or disposal facility or the expansion of an existing transformation or disposal facility even though that reservation of the area or areas is not consistent with the applicable city or county general plan. A reserved area in a countywide siting element is tentative until it is made consistent with the applicable city or county general plan."

The sites and/or areas, discussed below, are identified as "tentatively reserved" in the CSE. However, if the sites and/or areas are not brought into consistency with the local jurisdictions' General Plan by the next five-year revision of the Countywide Integrated Waste Management Plan, or subsequent revisions, these sites and/or areas are required to be removed from the CSE. The local government with jurisdiction over the area may also remove **"tentatively reserved" sites** and/or areas from the CSE by requesting the County to do so at the time of the next revision of the CSE.

A detailed discussion of these sites and/or areas is provided in **Chapter 7** of the CSE. Table 8-1 also provides an overview of the current status of each site listed below.

8.5.1 Class III Landfills

There are no proposed new (or expansions of existing) Class III landfills in the County.

8.5.2 Inert Waste Landfills

There are no proposed new (or expansion of existing) inert waste landfills in the County that are considered "tentatively reserved" in the CSE.

Key Terms

Tentatively Reserved Site
Refers to 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.

Key Terms

Transformation Facility
Refers to a facility whose principal function is to convert, combust, or otherwise process solid waste by "incineration, pyrolysis, distillation, or biological conversion" for the purpose of volume reduction, synthetic fuel production, or energy recovery. Transformation facility does not include a composting, gasification, EMSW conversion, or biomass conversion facility.

8.5.3 Transformation Facilities

There are no proposed new (or expansions of existing) transformation facilities in the County.

8.5.4 Alternative Technology Facilities

Aside from the two existing transformation facilities, there are no other existing alternative technology facilities (e.g., conversion technology) in the County. However, the locations and/or areas potentially suitable for locating the new alternative technology facilities (e.g., conversion technology, transformation) within the County are identified in **Chapter 7** (Section 7.8.1 and **Map 7-1**). These locations and/or areas are not yet designated or authorized for alternative technology facilities (e.g., conversion technology, transformation) by their respective local land use authority. These locations and/or areas are, therefore, considered "tentatively reserved" for the purposes of the CSE.

A detailed discussion of these sites and/or areas is provided in **Chapter 7** of the CSE

9

Out-Of-County Disposal

9.0 OUT-OF-COUNTY DISPOSAL

9.1 PURPOSE

As the disposal capacity within Los Angeles County (County) continues to diminish, and the siting of new and/or expansion of existing Class III landfills becomes increasingly difficult, development of out-of-County disposal becomes more essential to supplement in-County disposal capacity.

This Chapter describes how jurisdictions in the County may utilize out-of-County Class III landfills in California, to offset the deficiency in in-County disposal capacity and meet their solid waste management goals during the 15-year planning period from 2018 to 2033. This Chapter also describes the existing and proposed new out-of-County Class III landfills that may be relied upon to provide the additional disposal capacity.

Furthermore, since dependence on out-of-County disposal to address any potential shortfall in the County's disposal capacity during the 15-year planning period may present serious health and safety, as well as economic risks to jurisdictions in the County, the limitations of the out-of-County disposal option must be properly considered, and 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 residents and businesses in the County.

The contents of this Chapter are drawn from California Code of Regulations (CCR), Title 14, Division 7, Chapter 9, Article 6.5, Section 18755 (a), (b), and (c) and Section 18756.5 (b)(2); and discussed in Section 9.3 of this Chapter.

9.2 DEFINITIONS

Definitions of key terms used in this Chapter are included when referenced. For a more complete listing of acronyms and definitions, please refer to the List of Acronyms and Glossary of Terms at the beginning and end of this document, respectively.

Exportation of solid waste to other jurisdictions outside the County is dictated more by market forces rather than by government actions.

9.3 SPECIFIC REQUIREMENTS

CCR, Title 14, Section 18755 (a), (b), and (c) requires the following:

(a) The Siting Element shall demonstrate that there is a countywide or regionwide minimum of 15 years of combined permitted disposal capacity through existing or planned solid waste disposal and transformation facilities or through additional strategies.

(b) The Siting Element shall describe and identify the areas, numbers, and types of new solid waste disposal and transformation facilities, as well as the expansion of existing solid waste disposal and transformation facilities necessary to provide a minimum of 15 years of combined permitted disposal capacity.

(c) If the requirements of subdivision (b) of this section cannot be demonstrated, then strategies shall be discussed for the transformation, disposal, or diversion of excess waste.

CCR, Title 14, Section 18756.5 (b) requires the following:

(b) If new or expandable solid waste disposal facilities are not available or are not sufficient to meet countywide or regionwide needs, each county and regional agency shall include strategies for disposing of solid waste. The discussion of strategies shall include, but is not limited to, the following:

(1) A description of the types (residual, commercial, industrial, and special) and quantities in cubic yards and in tons of waste in excess of remaining volumetric capacity of existing solid waste disposal facilities.

(2) A description of the diversion or export programs that will be implemented to safely handle and divert or dispose of excess solid waste. The description shall identify the existing solid waste disposal facilities, including those outside of the county or regional agency, that will be used to implement these strategies. The description shall document how the proposed programs shall provide the county or regional agency with sufficient disposal capacity to meet the required minimum of 15 years of combined permitted disposal capacity as described in CCR 18755(a) of Article 6.5.

9.4 INTRODUCTION

As discussed in **Chapter 1**, and consistent with the goals and policies established in **Chapter 2** of the Los Angeles County Countywide Siting Element (CSE), the primary goal of the CSE is to address the solid waste disposal needs of the 88 cities in the County and the County unincorporated communities for a 15-year planning period from 2018 to 2033. The adequacy of in-County disposal capacity to address these needs under various scenarios, through utilization of existing in-County solid waste facilities, approved expansion of existing facilities, and development of alternative technology facilities (e.g., conversion technology and transformation), have been analyzed and discussed in **Chapters 3**, **4**, **5**, **7**, and **8** of the CSE. Experience in siting new landfills and expanding existing landfills underscores the difficulty of achieving this goal.

Based on the Findings of the Preliminary Alternate Site Study conducted in 1988 by Los Angeles County Public Works and County Sanitation Districts of Los Angeles County (CSD) to identify the best sites for potential development of land disposal facilities in the County, it is recognized that: (1) with the removal of Elsmere and Blind Canyons from the CSE's list of potential new landfill sites, no new in-County landfill(s) are expected to be developed in the County during this planning period or in the foreseeable future; (2) most landfill expansions proposed in the CSE, dated June 1997, have been permitted;

and (3) adequate reserve daily capacity should be provided to handle daily and seasonal variations in waste quantities and unanticipated disposal needs, and to maintain a competitive environment.

Flexibility on importation/exportation of solid waste is crucial to the County due to the difficulties associated with permitting new (or expanding existing) disposal capacity. However, flexibility may be limited as individual jurisdictions attempt to manage existing disposal capacity within their boundaries.

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 the 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 in-County infrastructure necessary to provide access to these facilities.

Since approval of the previous CSE, dated June 1997: (1) six major and two minor Class III landfills in the County have closed; (2) Elsmere and Blind Canyons were removed from the CSE's list of future landfill sites; (3) there are no new Class IIII landfills expected to be developed in the County; and (4) the net in-County disposal capacity since 1997 has continued to diminish. These changes caused a shift in the solid waste disposal patterns in the County, including an increase in the use of out-of-County disposal facilities. These events underscore the dynamic nature of solid waste management in the County and the importance of maintaining flexibility on the importation/exportation of solid waste across jurisdictional boundaries.

Based on data from the 2018 Disposal Reporting System (DRS) and the Solid Waste Information Management System, about 49 percent of the solid waste disposed by Los Angeles County residents and businesses (approximately 16,413 tons per day (tpd) or 5,120,871 tons) was exported to Class III landfill facilities in Kern, Orange, Riverside, San Bernardino, San Diego, Solano, Stanislaus, and Ventura and other counties in California for disposal. Conversely, in 2018 about three percent (approximately 563 tpd or 175,737 tons) of the solid waste disposed in Los Angeles County was imported from other counties. **Table 9-1** summarizes the list of out-of-County Class III Landfills used by Los Angeles County jurisdictions for waste disposal in 2018. The County will continue to identify additional out-of-County landfills inside California for potential exportation of waste from the County during the 15-year planning period.

TABLE 9-1: Summary of Existing and Proposed New Out-of-County Class III Landfills (Located in California) Utilized by Los Angeles County in 2018 and Potentially Available for Out-of-County Disposal[1]

Facility Location Owner/Operator	Rail Access	Distance from Los Angeles County[2]	2018 Average Daily Disposal Rate (tpd-6)	2018 Average Disposal from Los Angeles County[3,4] (tpd-6)	Permitted Operating days/week	Permitted Daily Disposal (tpd)	Remaining Permitted Disposal Capacity (million tons)[5]	Remaining Design Life (years)	Tipping Fees[6] (per ton)	Import Surcharge (per ton)	Comments
Mesquite Regional Landfill Imperial County County Sanitation District No. 2 of Los Angeles County	YES	210 miles	—	—	7	20,000	660	109	$105-$125	$1 (min)[8]	Not yet operational. Permitted to reserve up to 1,000 tpd of available capacity for Imperial County. Up to 4,000 tpd may be transported by truck haul.
H.M. Holloway Landfill, Inc. Kern County Holloway Environmental, LLC.	YES	156 miles	1,141	544	6	2,000	3	10	$20.00		Holloway currently has a contract with the Los Angeles County Sanitation Districts. Tipping Fees (per ton): $16 per ton for LA County and $20 per/ton for other counties.
Frank R. Bowerman Sanitary Landfill[7] Orange County O.C. Waste and Recycling	NO	45 miles	7,593	2,470	6	11,500	104	34	$59.05	Varies	The County of Orange has three import waste agreements with waste hauling companies to import waste into Orange County. Frank R. Bowerman, Olinda Alpha, and Prima Deshecha Sanitary Landfills have import waste agreements with waste hauling companies and County Sanitation Districts which will expire on June 30, 2025.
Olinda Alpha Sanitary Landfill[7] Orange County O.C. Waste and Recycling	NO	30 miles	6,858	2,761	6	8,000	16	7	$58.18 - Non-Contract $34.18 - Contract Rate	Varies	
Prima Deshecha Sanitary Landfill[7] Orange County O.C. Waste and Recycling	NO	60 miles	1,747	295	6	4,000	80	83	$58.18	—	
El Sobrante Landfill Riverside County USA Waste Services of California, Inc.	NO	60 miles	12,050	4,857	7	16,054	148	43	$35.91	$3.56	
Mid-Valley Sanitary Landfill San Bernardino County San Bernardino County Solid Waste Management Division	NO	53 miles	3,616	1,752	6	7,500	37	14	$31.26 - $47.94		Regular gate rate is $47.94 (additional $12 fee per ton for waste that has not been pre-processed through recycling programs). LA County waste being delivered for disposal at the San Timoteo Sanitary Landfill through the import agreement with Athens Services is $31.26 for FY 2018-2019.
San Timoteo Sanitary Landfill San Bernardino County San Bernardino County Solid Waste Management Division	NO	67 miles	906	457	6	2,000	7	24	$31.26 - $47.94		
Simi Valley Landfill & Recycling Center Ventura County Waste Management of California, Inc.	NO	50 miles	4,087	2,522	7	6,000	50	54	$68.00 - $72.00	$5.00	
TOTAL			37,998	15,659		77,054					

1 "—" data not provided or available

2 Distance is measured from Downtown Los Angeles, California.

3 Estimated quantity based on the data provided by the Counties in the Solid Waste Information Management System (SWIMS) and/or the Disposal Reporting System (DRS).

4 Waste exported to other Out of County landfills accounts for another 754 tons per day. Total Waste exported in 2018 is approximately 16,413 tons per day.

5 Estimated quantity provided by landfill operators in tons, otherwise a conversion factor of 1,200 lb/cy was used.

6 Tipping fees are based on current waste disposal fees provided by landfill operators.

7 The County of Orange has import waste agreements with the County to import waste into Orange County with waste hauling companies and County Sanitation Districts which will expire on June 30, 2025.

8 Amount based on Imperial County host fees per facility operator.

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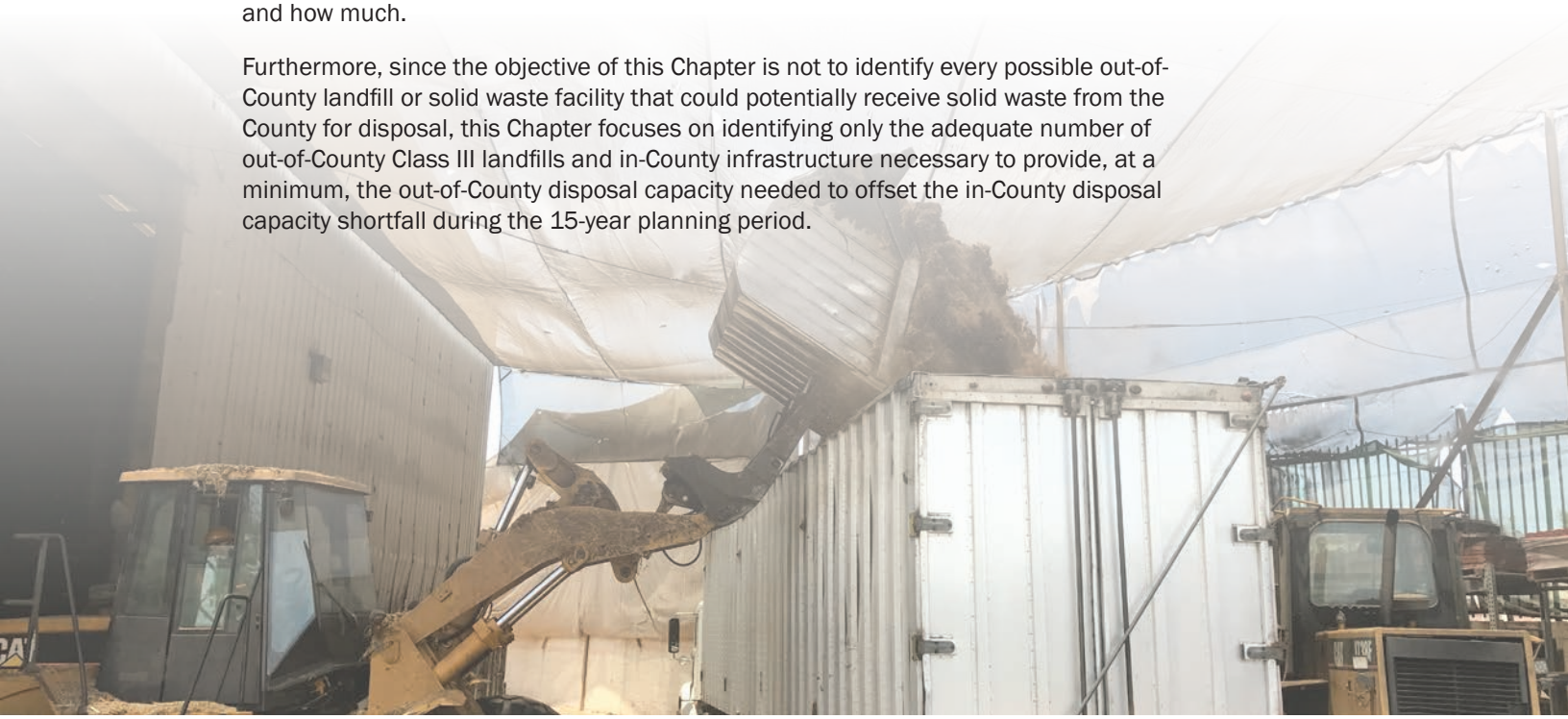
TABLE 9-1:
Summary of Existing and Proposed New Out-of-County Class III Landfills (Located in California) Utilized by Los Angeles County in 2018 and Potentially Available for Out-of-County Disposal

9.5 ELEMENTS OF THE OUT-OF-COUNTY DISPOSAL OPTION

Exportation of solid waste out of the County involves the following basic elements: (1) out-of-County landfills and other solid waste facilities, located in-State; (2) transportation modes to transport the solid waste from the County to out-of-County and remote landfills; (3) in-County infrastructure necessary to access the out-of-County capacities; and (4) the prohibition of solid waste import restrictions or bans by host jurisdictions (county, or city) on solid waste export from the County.

However, due to the dynamic nature of the solid waste management industry, it is very difficult to predict the pattern of flow of solid waste (generated in the County) that is destined for disposal. Exportation of solid waste to other jurisdictions outside the County is dictated more by market forces rather than by government actions. As such, it is difficult to pre-determine with consistent accuracy which of the out-of-County landfills or solid waste facilities in California will receive solid waste exported from the County and how much.

Furthermore, since the objective of this Chapter is not to identify every possible out-of-County landfill or solid waste facility that could potentially receive solid waste from the County for disposal, this Chapter focuses on identifying only the adequate number of out-of-County Class III landfills and in-County infrastructure necessary to provide, at a minimum, the out-of-County disposal capacity needed to offset the in-County disposal capacity shortfall during the 15-year planning period.



Key Terms

Transfer Station
See "Solid Waste Station."

Materials Recovery Facility (MRF)
Refers to a 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, composting, or use as feed stock for alternative technology facilities.

9.6 TRANSPORTATION MODES FOR EXPORTING SOLID WASTE TO OUT-OF-COUNTY LANDFILLS

There are a number of out-of-County or remote solid waste disposal facilities (i.e., in-State California Class III landfills), which are identified in **Table 9-1** of this Chapter, that are (or may be) available for disposal of solid waste generated in the County. However, in order to rely on the viability of out-of-County disposal, it is necessary to determine how waste will be transported to these landfills.

9.6.1 Truck Transport

The transportation of solid waste to out-of-County facilities may be achieved by truck. Trucks may transport waste directly from the curbside or receive loads from **transfer stations (TS)**, **materials recovery facilities (MRFs)**, or **CDI debris processing facilities**. However, reliance on truck transport may occur mostly in outlying County areas exporting waste to a landfill located in an area adjacent to the County.

Currently, a majority of in-County existing MRFs, TS, and CDI debris processing facilities, can be utilized in the process of transporting solid waste by truck to distant landfills. Economic factors are the major determinants in the utilization of these facilities.

Solid waste industry experts have determined that transporting waste by truck is more economical for distances less than 200 miles, whereas transportation by rail is more economical for distances greater than 200 miles. Until the "Waste-by-Rail" (WBR) system becomes a feasible and economical alternative for transporting solid waste, truck transport will most likely be the primary mode for transporting waste to out-of-County landfills. In fact, CSD also plans to keep truck transportation as an option for transporting waste to Mesquite Regional Landfill and to the CSD's WBR project (see Section 9.8.1.2).

Key Terms

Tipping Fee
Refers to a fee for unloading or dumping waste at a solid waste management facility.

Transfer Station
See "Solid Waste Station".

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

Construction, Demolition, and Inert (CDI) Debris Processing Facility
Refers to a site that receives any combination of construction and demolition debris, and Type A inert debris per operating day for the purposes of storage, handling, transferring, or processing. Type A inert debris includes, but is not limited to, concrete (including fiberglass or steel reinforcing bar embedded in the concrete), fully cured asphalt, crushed glass, fiberglass, asphalt or fiberglass roofing shingles, brick, slag, ceramics, plaster, and clay products. The facilities listed in the CSE under the CDI category are only those construction and demolition (C&D) debris recycling facilities in Los Angeles County classified as CDI facilities in the Solid Waste Information System (SWIS) database. For a complete list of the C&D recycling facilities in Los Angeles County, see the Los Angeles County Construction and Demolition Debris Recycling and Reuse Program website at http://dpw.lacounty.gov/epd/CD/cd_attachments/Recycling_Facilities.pdf.

Intermodal
Refers to the transport of freight by two or more modes of transportation (e.g., rail to truck, ship to rail, etc.).

Intermodal Facility
Refers to a site consisting of tracks, lifting equipment, and a control point for the transfer of solid waste by means that involve rail transport (e.g., rail to truck, ship to rail, etc.), or

9.6.2 Rail Transport – Waste-by-Rail System

Solid waste may also be transported to out-of-County disposal facilities by train through the WBR system. It is an alternative means of solid waste transportation that could provide jurisdictions in the County access to a greater array of landfills that would otherwise be inaccessible or extremely expensive. In concept, the WBR system has the potential to reduce labor costs, equipment and vehicle costs, energy costs, and the amount of time typically associated with the transportation of waste to out-of-County landfills by truck (particularly for distances greater than 200 miles).

9.6.2.1 Waste-by-Rail System in Los Angeles County

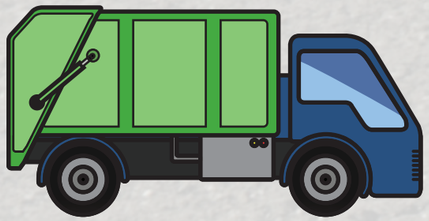
Currently, there is no other existing or proposed new WBR system in the County besides the WBR System developed by CSD. However, solid waste industry experts expect the diminishing in-County landfill capacity and rising **tipping fees** to hasten the establishment of a countywide (or individual jurisdiction's) WBR system in the County by the private sector, or through public/private partnerships, in concert with the development of alternative technology facilities (e.g., conversion technology).

For example, in 1991, an Ad Hoc Committee comprised of City officials and managers was formed to guide CSD's effort in developing a WBR system consistent with the daily disposal capacity for Puente Hills Landfill upon its closure.

The Ad Hoc Committee determined that the CSD's WBR system will consist of the following components: (1) MRFs, TS, CDI debris processing facilities, etc., located throughout the County, where refuse collection trucks would deliver loads of solid waste for recovery of recyclable materials, with the residual being loaded into intermodal transport containers (i.e., Puente Hills Landfill MRF); (2) local rail yard, where **intermodal** containers would be delivered by truck and loaded onto rail cars (i.e., Puente Hills Landfill **Intermodal Facility**); (3) rail transport, where a train would transport the containerized waste to a remote landfill using existing rail lines (i.e., Union Pacific Railroad (UPRR)); (4) remote rail yard, where containers would be unloaded for transport to the landfill; and (5) out-of-County/remote landfill where waste from the intermodal containers would be disposed (i.e., Mesquite Regional Landfill). An overview of the proposed WBR system is shown in **Flowchart 9-1**.

The Puente Hills MRF began operation in July 2005 (see Section 9.7.2.1 for more detailed information). CSD have acquired the Mesquite Regional Landfill in Imperial County. Projects to prepare the site for initial operations have been constructed, and the site is now ready to accept waste-by-truck delivery. (see Section 9.8.1.2 for more detailed information). Puente Hills Intermodal Facility is expected to become operational once it is economically feasible considering factors such as market costs for disposal and transportation, as well as competition with local landfills. (see Section 9.7.4.1 for more detailed information).

Previously, a disposal capacity shortfall was expected to occur in the County when the Puente Hills Landfill closed in 2013. But due to the economic downturn that significantly reduced tonnage Countywide and the successful permitting of additional nearby landfill capacity, there will be adequate disposal capacity within the region well into the future. While there is adequate disposal capacity within the region, it is unlikely that customers will pay the higher cost of transporting waste over a 200-mile distance from Los Angeles County to a remote landfill. Therefore, utilization of the waste-by-rail system is not anticipated until local capacity is diminished. Until needed, the waste-by-rail system will be in standby mode, along with the option of truck hauling, to transport waste to a remote landfill.

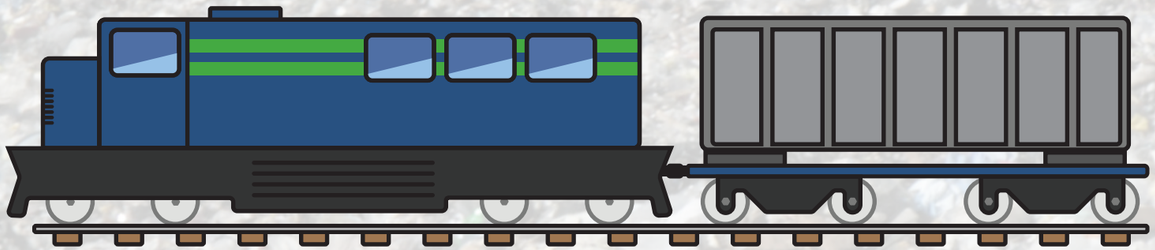


LOCAL COLLECTOR

MRF/TRANSFER STATION

TRANSFER TRUCK

INTERMODAL FACILITY/ RAIL YARD



REGIONAL RAIL

REMOTE LANDFILL

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FLOWCHART 9-1:
Waste-by-Rail System Overview

9.7 IN-COUNTY INFRASTRUCTURE NECESSARY FOR ACCESSING OUT-OF-COUNTY DISPOSAL CAPACITY

Utilization of the out-of-County landfills and other out-of-County solid waste facilities require adequate in-County infrastructure, such as transfer stations (TS), **rail yards**, rail loading, and intermodal facilities, etc., to access these out-of-County facilities (see **Tables 9-2** and **9-3**, and **Chapter 4**, **Map 4-1** for the list and locations of these facilities).

Transportation of solid waste to out-of-County locations would require the use of loading facilities. For a waste-by-truck system, transfer stations enable transportation of waste to disposal facilities with increased efficiency and cost-effectiveness. Transfer stations provide greater flexibility and potential savings because 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, with the exception that rail-loading facilities transfer solid waste from trucks to rail cars rather than from trucks to trucks.

9.7.1 In-County Materials Recovery Facilities and Transfer Stations Capacity[1]

As of 2018, there are approximately 46 large volume transfer and processing facilities (see **Table 9-2** and **Chapter 4**, **Map 4-1** for list and map of facility locations), of which 17 are transfer stations (TS) and 29 are material recovery facilities (MRF) operating in the County that are necessary for accessing out-of-County disposal capacity.

9.7.2 Materials Recovery Facilities and Transfer Stations with Potential Railroad Yard Capabilities

It is important to note that development of solid waste TSs with railroad yard capability in the County is essential for utilization of remote (over 200 miles away) out-of-County landfills that have rail access.

From an economic perspective, solid waste TSs with rail-loading capabilities are preferable to those without rail-loading capabilities because more solid waste may be transported to remote out-of-County landfills by rail at a lower cost (whereas truck transport is more economical for distances less than 200 miles). 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 the County. Without these rail-loading facilities in place, solid waste exportation by rail to out-of-County disposal facilities may not be feasible. The **railroad yards** in the County potentially available to support export to out-of-County solid waste disposal facilities are described in Sections 9.7.3 and 9.7.4 and listed in **Table 9-3** of this Chapter.

1 In-County TS Capacity discussed in this Chapter does not include recycling centers (per CalRecycle 3-part test) and source separated C & D Waste Recycling facilities.

Key Terms

Rail Yards
Refer to locations with a complex series of railroad tracks for storing, switching, sorting, or loading/unloading railroad cars and/or locomotives. Rail yards have many parallel tracks to keep rolling stock stored off the main line as to not obstruct the flow of traffic. Rail yards are normally built with storage capacity for railroad cars while they are not being loaded or unloaded, or are waiting to be assembled into trains.

Rail-Loading Facilities
Refer to unimodal facilities at which goods are loaded directly onto a railcar for rail transport.


1
2
3
4
CAT

TABLE 9-2: List[1] of Materials Recovery Facilities and Transfer Stations in Los Angeles in 2018

No.	Facility Name	Location	SWIS[2] No. [SWFP Tier]	Facility Type	Owner	Operator	Thomas Guide Page	Permitted Daily Intake Capacity[3] (in tpd-6) []4
MATERIALS RECOVERY FACILITIES[5]								
1	Active Recycling MRF and Transfer Station	2000 W. Slauson Avenue Los Angeles, CA 90047	19-AR-1250 [P]	Large Volume Transfer/ Processing Facility	Active Recycling Company, Inc.	Active Recycling Company, Inc.	673-6H	250
2	Allan Company Baldwin Park	14604-14618 Arrow Highway Baldwin Park, CA 91706	19-AA-1110 [P]	Large Volume Transfer/ Processing Facility[6]	Cedarwood-Young, Doing Business As Alan Company	Cedarwood-Young, Doing Business As Alan Company	598-C3	750
3	Angelus Western Paper Fibers, Inc.	2474 Porter Street Los Angeles, CA 90021	19-AR-1185 [P]	Large Volume Transfer/ Processing Facility	Bloom Investment	Angelus Western Paper Fibers, Inc.	634-J7	650
4	Athens Services	14048 East Valley Boulevard Industry, CA 91746	19-AA-0863 [P]	Large Volume Transfer/ Processing Facility	Arakelian Enterprises, Inc.	Athens Services	637-J5	5,000
5	Athens Sun Valley Materials Recycling & Transfer Station	11121 Pendleton Street Sun Valley, CA 91353	19-AR-5581 [R]	Large Volume Transfer/ Processing Facility	Arakelian Enterprises, Inc.	Arakelian Enterprises, Inc.	502-J6	1,500
6	Azusa Transfer and MRF	1501 W. Gladstone Street Azusa, CA 91701	19-AA-1127 [P]	Large Volume Transfer/ Processing Facility	Azusa Land Reclamation	Azusa Land Reclamation	598-F1	3,800
7	Bradley East Transfer Station (Sun Valley Recycling Park)	9227 Tujunga Avenue, Sun Valley, CA 91352	19-AR-1237 [T]	Large Volume Transfer/ Processing Facility	Waste Management Recycling and Disposal Service of California	Waste Management Recycling and Disposal Service of California	502-H6	1,532
8	City Fiber – Los Angeles Plant #2	2545 East 25th Street Los Angeles, CA 90058	19-AR-1236 [P]	Large Volume Transfer/ Processing Facility	City Fibers Waste Management Recycling and Disposal Service of California	Todd Jones	674-J2	300
9	City Fibers – West Valley Plant	16714 Schoenborn Street Los Angeles, CA 91343	19-AR-1235 [P]	Large Volume Transfer/ Processing Facility	City Fibers	Todd Jones	531-D2	350
10	City of Glendale MRF and TS	540 W. Chevy Chase Dr. Glendale, CA 91204	19-AA-1130 [P]	Large Volume Transfer/ Processing Facility	Allan CompanyBFI Waste Systems of North America, Inc.	Allan Company	564-D6	250

Notes:

1 Facilities listed are permitted by the California Department of Resources Recycling and Recovery's (CalRecycle). The data was obtained from CalRecycle's Solid Waste Information System (SWIS) and the County's Solid Waste Information Management System (SWIMS) as of August 2015. This list only includes facilities with a permitted daily capacity of at least 100 tpd.

2 The SWIS number is the same as the Solid Waste Facility Permit (SWFP) number. The designation of "EAN" means that the MRF, TS, or CDI debris processing facility is identified in the SWIS database as having an Enforcement Agency Notification tier under the 1994 California Integrated Waste Management Board tiered regulatory structure for all solid waste facilities and solid waste handling operation. Under this tier, the facility is responsible to inform the local enforcement agency (responsible for enforcing solid waste handling laws and regulations) in a particular jurisdiction in the State. The designation "P" means that the facility or site holds a SWFP per California Code of Regulations (CCR) Section 18200 et seq. The designation "R" means that the facility's or site's SWFP has been revised. The designation "T" means that the facility or site was issued a temporary SWFP. The designation "RP" means that the facility or site was issued a registration permit in accordance with Title 14, California Code of Regulations section 18104.

3 Permitted Daily Intake Capacity is the total quantity of solid waste the facility is allowed to receive in accordance with the terms, conditions, and limitations of relevant permits. The permitted capacity listed is based on information from the SWIS database website.

4 Figures in brackets are converted from cubic yards to tons using a conversion factor of: 900 pounds per cubic yard for Transfer Station Facilities; 240 pounds per cubic yard for Composting/Chipping and Grinding Facilities; and 1,200 pounds per cubic yard for Construction, Demolition and Inert Debris Facilities.

5 "Materials Recovery Facilities" (MRF) means solid waste facilities where solid wastes or recyclable materials are sorted or separated, by hand or by use of machinery, for the purposes of recycling or composting, or use as feed stock for alternative technology facilities. Facilities listed in this Table under the MRF Category are facilities listed in the SWIS database as transfer and processing facilities.

6 "Large Volume Transfer/Processing Facility" means a facility that receives 100 tons or more solid waste per operating day for the purpose of storing, handling, or processing the waste prior to transferring the waste to another solid waste operation or facility per [14 CCR, Title 14, Section 17402 (a)(9)].

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TABLE 9-2:
List of Materials Recovery Facilities and Transfer Stations in Los Angeles in 2018

TABLE 9-2: List of Materials Recovery Facilities and Transfer Stations in Los Angeles in 2018 (Cont.)

No.	Facility Name	Location	SWIS[2] No. [SWFP Tier]	Facility Type	Owner	Operator	Thomas Guide Page	Permitted Daily Intake Capacity[3] (in tpd-6) []4
MATERIALS RECOVERY FACILITIES (Continued)								
11	City Terrace Recycling Transfer Station	1511-1533 Fishburn Avenue City Terrace, CA 90063	19-AA-0859 [P]	Large Volume Transfer/ Processing Facility	Robert M. Arsenian	Robert M. Arsenian	635-D3	700
12	Downey Area Recycling and Transfer (DART)	9770 Washburn Road Downey, CA 90241	-AA-0801 [P]	Large Volume Transfer/ Processing Facility[6]	County Sanitation Districts of Los Angeles County and Downey Area R&T	County Sanitation Districts of Los Angeles County and Downey Area R&T	706-D7	5,000
13	Falcon Refuse Center, Inc.	3031 East "I" Street Wilmington, CA 90744	19-AR-0302 [P]	Large Volume Transfer/ Processing Facility	BFI Waste Systems of North America, Inc.	Alied Waste Transfer Services of California	795-A6	1,850
14	Grand Central Recycling and Transfer Station	999 Hatcher Avenue City of Industry, CA 91748	19-AA-1042 [P]	Large Volume Transfer/ Processing Facility	Grand Central Recycling and Transfer Station Inc.	Grand Central Recycling and Transfer Station Inc.	678-G2	5,000
15	Los Angeles Express Materials Recovery Facility	6625 Stanford Avenue Los Angeles, CA 90001	19-AR-1234 [T]	Large Volume Transfer/ Processing Facility	Olga Wilheim Trust; Miguel Dilella, Robet Wilheim, Olga Wilheim Trust	Titus Maintenance and Install Services, Inc.	674-E7	207
16	Mission Recycling/West Coast Recycling	1326 East 9th Street Pomona, CA 91766	19-AA-1107 [P]	Large Volume Transfer/ Processing Facility	Al Solis	West Coast Recycling DBA Mission Recycling	641-C3	300
17	Mission Recycling/West Coast Recycling	1341 East Mission Boulevard Pomona, CA 91766	19-AA-1108 [P]	Large Volume Transfer/ Processing Facility	Al Solis	West Coast Recycling DBA Mission Recycling	641-C2	200
18	Mission Road Recycling and Transfer Station	840 South Mission Road Los Angeles, CA 90023	19-AR-1183 [P]	Large Volume Transfer/ Processing Facility	Waste Management, Inc.	Waste Management, Inc. – Bradley LF and Misss	634-J6	1,785
19	Paramount Resource Recycling Facility	7230 Petterson Lane Paramount, CA 90723	19-AA-0840 [P]	Large Volume Transfer/ Processing Facility	Metropolitan Waste Disposal Corporation	Paramount Resource Recycling, Inc.	735-F3	2,450
20	Pico Rivera Materials Recycling Facility	8405 Loch Lomond Drive Pico Rivera, CA 90660	19-AA-1105 [P]	Large Volume Transfer/ Processing Facility	Danny D. Samarin	Waste Management Recycle America LLC	676-F3	327
21	Potential Industries	922 East E Street Wilmington, CA 90744	19-AR-1243 [P]	Large Volume Transfer/ Processing Facility	Potential Industries; Henry and Jessica Chen	Potential Industries	794-F7	5,000
22	Puente Hills Materials Recovery Facility (with potential rail loading capability)	2808 Workman Mill Road Whittier, CA 90601	19-AA-1043 [R]	Large Volume Transfer/ Processing Facility	Sanitation Districts of Los Angeles County	County Sanitation Districts of Los Angeles County	637-D7	4,400
23	Crown Recycling Services	9147 De Garmo Avenue Sun Valley, CA 91352	19-AR-0303 [P]	Large Volume Transfer/ Processing Facility	Thomas Fry	Recology Los Angeles	502-J7	4,600
24	SA Recycling LLC	8720 Tujunga Avenue, Sun Valley, CA 91352	19-AR-1258 [RP]	Medium Volume Transfer/Processing Facility	SA Recycling LLC	SA Recycling LLC	532-J1	100
25	Southern California Disposal Recycling and Transfer Station	1908 Frank Street Santa Monica, CA 90404	19-AA-0846 [P]	Large Volume Transfer/ Processing Facility	Southern California Disposal Co. Recycling and Transfer Station	Southern California Disposal Co. Recycling and Transfer Station	671-H1	1,056

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TABLE 9-2:
List of Materials Recovery Facilities and Transfer Stations in Los Angeles in 2018 (Cont.)

TABLE 9-2: List of Materials Recovery Facilities and Transfer Stations in Los Angeles in 2018 (Cont.)

No.	Facility Name	Location	SWIS[2] No. [SWFP Tier]	Facility Type	Owner	Operator	Thomas Guide Page	Permitted Daily Intake Capacity[3] (in tpd-6) []4
MATERIALS RECOVERY FACILITIES (Continued)								
26	Sun Valley Paper Stock Materials Recovery Facility and Transfer Station	8701 San Fernando Road Sun Valley, CA 91352	19-AR-1227 [P]	Large Volume Transfer/ Processing Facility	Stephen Young	Sun Valley Paper Stock Transfer Station and Materials Recovery Facility	532-H1	750
27	Waste Management South Gate Transfer Station	4489 Ardine Street, South Gate, CA 90280	19-AA-0856 [P]	Large Volume Transfer/ Processing Facility	H.B.J.J. Inc. (Subsidiary of USA Waste)	H.B.J.J. Inc. (Subsidiary of USA Waste)	705-D2	2,000
28	Waste Resources Recovery	357 West Compton Boulevard Gardena, CA 90248	19-AA-0857 [P]	Large Volume Transfer/ Processing Facility	Waste Resources Recovery, Inc.	Waste Resources Recovery, Inc.	734-C4	500
29	West Valley Fibers	14811 Keswick Avenue, Van Nuys, CA 91405	19-AR-1261 [RP]	Medium Volume[7] Transfer/Processing Facility	Potential Industries, Inc.	Potential Industries, Inc.	531-J3	100
						TOTAL (MATERIALS RECOVERY FACILITIES)		**50,707**
TRANSFER STATIONS[8]								
30	American Waste Transfer Station	1449 West Rosecrans Avenue Gardena, CA 90249	19-AA-0001 [P]	Large Volume Transfer/ Processing Facility	Republic Services of California, LLC	Republic Services of California, LLC	733-J3	2,225
31	Bel-Art Waste Transfer Station	2501 East 68th Street Long Beach, CA 90805	19-AK-0001 [P]	Large Volume Transfer/ Processing Facility	Consolidated Disposal Services, LLC	Consolidated Disposal Services, LLC	735-G6	1,500
32	Carson Transfer Station and Materials Recovery Facility	321 West Francisco Street Carson, CA 90745	19-AQ-0001 [P]	Large Volume Transfer/ Processing Facility	USA Waste of California, Inc.	USA Waste of California, Inc.	764-C3	5,300
33	Central Los Angeles Recycling Center and Transfer Station	2201 E. Washington Boulevard Los Angeles, CA 90034	19-AR-1182 [P]	Large Volume Transfer/ Processing Facility	City of Los Angeles Bureau of Sanitation	City of Los Angeles, Bureau of Sanitation	674-H1	4,025
34	City of Inglewood Transfer Station	222 West Beach Avenue Inglewood, CA 90302	19-AA-0067 [RP]	Medium Volume Transfer/ Processing Facility	City of Inglewood	City of Inglewood	703-C2	100
35	Compton Recycling and Transfer Station	2509 West Rosecrans Avenue Compton, CA 90059	19-AA-0048 [P]	Large Volume Transfer/ Processing Facility	B.F.I. Waste Systems of North America, Inc.	B.F.I. Waste Systems of North America, Inc.	734-E3	1,500

Notes:

7 "Medium Volume Transfer/Processing Facility" means a facility that receives equal to or more than 60 cubic yards or 15 tons (whichever is greater) of solid waste per operating day but less than 100 tons of solid waste, for the purpose of storing or handling the waste prior to transferring the waste to another solid waste operation or facility; or a facility that receives any amount of solid waste, up to 100 tons per operating day, for the purpose of processing solid waste prior to transferring the waste to another solid waste operation or facility.

8 "Transfer Stations" means 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. Facilities in this Table listed under the Transfer Stations category are facilities listed in the SWIS database as Transfer facilities, or Direct Transfer Facilities.

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TABLE 9-2:
List of Materials Recovery Facilities and Transfer Stations in Los Angeles in 2018 (Cont.)

TABLE 9-2: List of Materials Recovery Facilities and Transfer Stations in Los Angeles in 2018 (Cont.)

No.	Facility Name	Location	SWIS[2] No. [SWFP Tier]	Facility Type	Owner	Operator	Thomas Guide Page	Permitted Daily Intake Capacity[3] (in tpd-6) []4
TRANSFER STATIONS (Continued)								
36	Culver City Transfer and Recycling Station	9255 Jefferson Boulevard Culver City, CA 90232	19-AA-0404 [P]	Large Volume Transfer/ Processing Facility	City of Culver City-Sanitation Division of Public Works Department	City of Culver City-Sanitation Division of Public Works Department	672-H1	500
37	East Los Angeles Recycling and Transfer Station	1512 N. Bonnie Beach Place City Terrace, CA 90063	19-AA-0845 [P]	Large Volume Transfer/ Processing Facility	Perdomo/BLT Enterprises, LLC c/o Consolidated Services, Inc.	Perdomo/BLT Enterprises, LLC c/o Consolidated Services, Inc.	635-E3	700
38	East Street Maintenance District Yard	452 San Fernando Road Los Angeles, CA 90065	19-AA-0816 [P]	Large Volume Transfer/ Processing Facility	City of Los Angeles Bureau of Street Maintenance	City of Los Angeles Bureau of Street Maintenance	594-J7	[315]
39	EDCO Recycling and Transfer	2755 California Avenue Signal Hill, CA 90755	19-AA-1112 [P]	Large Volume Transfer/ Processing Facility	Lee Family Trust; PhilEsp, LLC; Cockriel Family Trust (Robert W. Lee)	EDCO Transport Services	635-6A	1,500
40	Granada Hills Street Maintenance District Yard	10210 Etiwanda Avenue Northridge, CA 91325	19-AA-0817 [P]	Large Volume Transfer/ Processing Facility	City of Los Angeles Bureau of Street Maintenance	City of Los Angeles Bureau of Street Maintenance	500-J4	[450]
41	Innovative Waste Control (potential rail loading capability)	4133 Bandini Boulevard Vernon, CA 90023	19-DE-0001 [P]	Large Volume Transfer/ Processing Facility	Consolidated Disposal Services, LLC	Consolidated Disposal Services, LLC	675-D3	1,250
42	South Gate Transfer Station	9530 South Garfield Avenue South Gate, CA 90280	19-AA-0005 [P]	Large Volume Transfer/ Processing Facility	Sanitation Districts of Los Angeles County	County Sanitation Districts of Los Angeles County	705-G5	1,000
43	Southwest Street Maintenance District Yard	5860 South Wilton Place Los Angeles, CA 90047	19-AA-0818 [P]	Large Volume Transfer/ Processing Facility	City of Los Angeles Bureau of Street Maintenance	City of Los Angeles Bureau of Street Maintenance	673-H6	[225]
44	Universal Waste Systems Inc. DTF	2460 East 24th Street Los Angeles, CA 90058	19-AR-1251 [RP]	Direct Transfer Facility	John Pabigian	Universal Waste Systems Inc.	674-H2	150
45	Van Nuys Street Maintenance District Yard	15145 Oxnard Street Van Nuys, CA 91411	19-AA-0814 [P]	Large Volume Transfer/ Processing Facility	City of Los Angeles Bureau of Street Maintenance	City of Los Angeles Bureau of Street Maintenance	561-H1	[225]
46	Western District Satellite Yard	6000 West Jefferson Blvd. Los Angeles, CA 90016	19-AR-5585 [RP]	Direct Transfer Facility	City of Los Angeles Bureau of Sanitation	City of Los Angeles Bureau of Sanitation	632-J7	149
							TOTAL (TRANSFER STATIONS)	**21,114**

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TABLE 9-2:
List of Materials Recovery Facilities and Transfer Stations in Los Angeles in 2018 (Cont.)

TABLE 9-3: List[9] of Railroad Yards in Los Angeles County

No.	Facility Name[10]	Location/Address	Owner	Operator[11]/Rail Line[12]	Operation Type	On-Site Overhead/ Gantry Cranes[13]
1	Bell Yard	2818 South Easter Avenue Commerce, CA 90040	Burlington Northern and Santa Fe Railway Company	Burlington Northern and Santa Fe Railway Company	Intermodal	Yes
2	La Mirada Yard	14503 Macaw Street La Mirada, CA 90638	Burlington Northern and Santa Fe Railway Company	Burlington Northern and Santa Fe Railway Company	Manifest[14]	No
3	Los Angeles (Hobart Yard)	3770 East Washington Boulevard Vernon, CA 90023	Burlington Northern and Santa Fe Railway Company	Burlington Northern and Santa Fe Railway Company	Intermodal and Manifest	Yes
4	Malabar Yard	2492 East 49th Street Vernon, CA 90058	Burlington Northern and Santa Fe Railway Company	Burlington Northern and Santa Fe Railway Company	Manifest	No
5	Pico Rivera Yard	7427 Rosemead Boulevard Pico Rivera, CA 90660	Burlington Northern and Santa Fe Railway Company	Burlington Northern and Santa Fe Railway Company	Manifest	No
6	Redondo Yard	2182 Sacramento Street Los Angeles, CA 90021	Burlington Northern and Santa Fe Railway Company	Burlington Northern and Santa Fe Railway Company	Storage Yard Only	No
7	Watson Yard	1302 Lomita Boulevard Wilmington, CA 90744	Burlington Northern and Santa Fe Railway Company	Burlington Northern and Santa Fe Railway Company	Manifest	No
8	Puente Hills Intermodal Facility	2500 Pellissier Place City of Industry, CA 90601	County Sanitation Districts of Los Angeles County	County Sanitation Districts of Los Angeles County/Union Pacific Railroad	Intermodal	Yes
9	Los Angeles Junction	4433 Exchange Avenue Los Angeles, CA 90058	Los Angeles Junction	Los Angeles Junction	Manifest	No
10	International Transportation Service, Inc.	1281 Pier G Way Long Beach, CA 90802	Port of Long Beach6	International Transportation Service, Inc./Pacific Harbor Line	Intermodal	No
11	Long Beach Container Terminal	1171 Pier F Avenue Long Beach, CA 90802	Port of Long Beach	Long Beach Container Terminal/Pacific Harbor Line	Intermodal	No
12	Metropolitan Stevedore Company	1045 Pier G Avenue Long Beach, CA 90802	Port of Long Beach	Metropolitan Stevedore Company/Pacific Harbor Line	Bulk Terminal7	No

Notes:

9 This table is arranged alphabetically by owner names. For the purposes of the Los Angeles Countywide Siting Element and this table, railroad yards include rail yards, intermodal, and rail-loading facilities. A rail yard or railroad yard is a location or facility with complex series of railroad track for storing, switching, sorting, or loading/unloading railroad cars and/or locomotives. Railroad yards have many parallel tracks to keep rolling stock stored off the main line so as to not obstruct the flow of traffic. Railroad yards are normally built with storage capacity for railroad cars while they are not being loaded or unloaded, or are waiting to be assembled into trains. Intermodal means the transport of freight by two or more modes of transportation (e.g., rail to truck, ship to rail, etc.). An intermodal facility is a site consisting of tracks, lifting equipment, paved and/or unpaved areas, and a control point for the transfer (receiving, loading, unloading, and dispatching) of trailers and containers between rail and highway, or between rail and marine modes of transportation. Rail-loading facilities are uni-modal facilities at which goods are loaded directly onto a railcar for rail transport.

10 Facilities designated with an asterisk (*) are proposed new facilities.

11 "Operator" means operator of facility.

12 "Rail Line" means owner of rail line.

13 Overhead/Gantry Cranes are types of cranes that lift objects by a hoist that is fitted in a trolley and can move horizontally on a rail or pair of rails fitted under a beam. These cranes are used to load and unload containers at an intermodal facility.

14 Manifest facilities can accept any type of freight car (box car, flat car, gondola, or hopper) but not a container or truck trailer. However, it should be noted that only containers and truck trailers (as used by intermodal facilities) can be utilized to transport solid waste. Therefore, a manifest facility would have to be redesigned in order to handle containerized waste.

15 Intermodal facilities within the Port of Long Beach are listed for completeness but are not feasible because of air pollution and environmental concerns.

16 "Bulk Terminal Facility" handles the shipping of bulk materials.

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TABLE 9-3:
List of Railroad Yards in Los Angeles County

TABLE 9-3: List[9] of Railroad Yards in Los Angeles County

No.	Facility Name[10]	Location/Address	Owner	Operator[11]/Rail Line[12]	Operation Type	On-Site Overhead/ Gantry Cranes[13]
13	Pacific Container – Pier J (North)	1521 Pier J Avenue Long Beach, CA 90802	Port of Long Beach	Pacific Container/Pacific Harbor Line	Intermodal	No
14	Pacific Container – Pier J (South)	1521 Pier J Avenue Long Beach, CA 90802	Port of Long Beach	Pacific Container/Pacific Harbor Line	Intermodal	No
15	Pier B Yard	1900 Pier B Street Long Beach, CA 90813	Port of Long Beach	Pacific Harbor Line	Storage Yard Only	No
16	Pier S Marine Terminal*	2000 West Seaside Boulevard Long Beach, CA 90802	Port of Long Beach	Pacific Harbor Line	Intermodal	Yes
17	SSA Terminals – Pier A (Mediterranean)	700 Pier A Plaza Long Beach, CA 90813	Port of Long Beach	SSA Long Beach Terminals/Pacific Harbor Line	Intermodal	No
18	TTI/Hanjin Shipping Company (Pier T)	301 Hanjin Road Long Beach, CA 90802	Port of Long Beach	Total Terminals International/ Pacific Harbor Line	Intermodal	No
19	American President Lines -- Global Gateway South	614 Terminal Way Terminal Island, CA 90731	Port of Los Angeles 9	American President Lines/Pacific Harbor Line	Intermodal	No
20	APM Terminals – Pier 400 (Maersk)	2500 Navy Way Terminal Island, CA 90731	Port of Los Angeles	APM Terminals/Pacific Harbor Line	Intermodal	No
21	Pasha Stevedoring & Terminals	802 South Fries Avenue Wilmington, CA 90744	Port of Los Angeles	Pasha Properties, Inc./Pacific Harbor Line	Bulk Terminal	No
22	Pier A Yard (Pacific Harbor Lines)	340 West Water Street Wilmington, CA 90744	Port of Los Angeles	Pacific Harbor Line	Manifest	No
23	Team Track (Pacific Harbor Lines)	296 South Avalon Wilmington, CA 90744	Port of Los Angeles	Pacific Harbor Line	Manifest	No
24	Terminal Island Container Transfer Facility (TICTF)	1000 New Dock Street Terminal Island, CA 90731	Port of Los Angeles	Pacific Harbor Line	Intermodal	No
25	West Basin Container Terminal (China Shipping)	2050 John S. Gibson Boulevard San Pedro, CA 90731	Port of Los Angeles	West Basin Container Terminal, LLC/Pacific Harbor Line	Intermodal	No
26	West Basin Container Terminal (Yang Ming)	2050 John S. Gibson Boulevard San Pedro, CA 90731	Port of Los Angeles	West Basin Container Terminal, LLC/ Pacific Harbor Line	Intermodal	No
27	West Basin East – Intermodal Container Transfer Facility*	920 West Harry Bridges Boulevard Wilmington, CA 90744	Port of Los Angeles	Trans Pacific Container Service, Inc./ Pacific Harbor Line	Intermodal	Yes

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TABLE 9-3:
List of Railroad Yards in Los Angeles County (Cont.)

TABLE 9-3: List[9] of Railroad Yards in Los Angeles County

No.	Facility Name[10]	Location/Address	Owner	Operator[11]/Rail Line[12]	Operation Type	On-Site Overhead/ Gantry Cranes[13]
28	Aurant Yard	5062 Valley Boulevard Los Angeles, CA 90032	Union Pacific Railroad	Union Pacific Railroad	Storage Yard Only	No
29	City of Industry Yard	17255 Arenth Avenue City of Industry, CA 91745	Union Pacific Railroad	Union Pacific Railroad	Intermodal and manifest	Yes
30	Dolores Yard	2442 East Carson Street Long Beach 90810	Union Pacific Railroad	Union Pacific Railroad	Intermodal	No
31	Los Angeles Intermodal Facility	4341 East Washington Boulevard City of Commerce, CA 90023	Union Pacific Railroad	Union Pacific Railroad	Intermodal and Manifest	Yes
32	Gemco Yard	14300 Cabrito Road Van Nuys, CA 91402	Union Pacific Railroad	Union Pacific Railroad	Manifest	No
33	Intermodal Container Transfer Facility (ICTF)	2401 East Sepulveda Boulevard Long Beach, CA 90810	Union Pacific Railroad	Union Pacific Railroad	Intermodal	Yes
34	J Yard	2100 25th Street Los Angeles, CA 90058	Union Pacific Railroad	Union Pacific Railroad	Manifest	No
35	Los Angeles Transportation Center (LATC)	750 Lamar Street Los Angeles, CA 90031	Union Pacific Railroad	Union Pacific Railroad	Intermodal	Yes
36	Los Nietos Yard	11394 Los Nietos Road Santa Fe Springs, CA 90670	Union Pacific Railroad	Union Pacific Railroad	Manifest	No
37	Manuel Yard	1450 East Road Long Beach, CA 90810	Union Pacific Railroad	Union Pacific Railroad	Manifest	No
38	Mead Yard	2402 Anaheim Street Wilmington, CA 90744	Union Pacific Railroad	Union Pacific Railroad	Manifest	No
39	Transfer Yard	400 Alameda Street Wilmington, CA 90744	Union Pacific Railroad	Union Pacific Railroad	Manifest	No
40	Valla Yard	8836 Sorenson Avenue Santa Fe Springs, CA 90670	Union Pacific Railroad	Union Pacific Railroad	Manifest	No
41	4th Street Yard	642 South Mission Road Los Angeles, CA 90023	Union Pacific Railroad	Union Pacific Railroad	Manifest	No

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TABLE 9-3:
List of Railroad Yards in Los Angeles County (Cont.)

The Puente Hills MRF is the only existing solid waste facility in the County with a railroad yard facility. At this time, operation of the permitted WBR system is on hold until it becomes economically feasible. In the 1990s, proponents of some landfill projects proposed developing facilities, such as solid waste transfer and processing facilities with rail capability within the County, upgrading existing facilities to add the rail-loading capability, and using existing intermodal facilities (currently operating for other commercial purposes) for the transport of waste by railroad cars. Some of the proposed projects incorporate the sorting of waste at local transfer and processing facilities (see Section 9.2.12 for a definition), as well as the loading of containerized waste onto railroad cars and/or trucks for shipment to out-of-County landfills for disposal.

The "then existing" **solid waste stations** previously evaluated in the 1990s for potential rail loading were:

- Athens Services, County Unincorporated Area of Bassett
- Carson Materials Recovery Facility and Transfer Station (previously named "Western Waste Industries Transfer Station"), City of Carson
- Central Los Angeles Solid Waste Station, City of Los Angeles
- Downey Area Recycling and Transfer Facility, City of Downey
- Grand Central Recycling and Transfer Station, City of Industry
- Innovative Waste Control Transfer Station, City of Vernon
- South Gate Transfer Station, City of South Gate

The "then proposed" new solid waste stations that were previously evaluated in the 1990s for potential rail loading were:

- Industry Solid Waste Station, City of Industry ("project terminated")
- Pomona Materials Recovery Facility, City of Pomona ("project terminated")
- Puente Hills Materials Recovery Facility (previously named Puente Hills Materials Recovery and Rail-Loading Facility), County unincorporated area near City of Industry
- Rail-Cycle, L.P., Solid Waste Station, City of Commerce ("project terminated")
- Vernon Materials Recovery and Transfer Facility, City of Vernon ("project terminated")

9.7.2.1 Puente Hills Materials Recovery Facility – County Unincorporated Area

The Puente Hills MRF is located at 2808 Workman Mill Rd, Whittier, CA 90601, next to the Puente Hills Landfill. The facility is owned and operated by CSD. The MRF is fully permitted, located on approximately 25 acres of the northwest portion of the Puente Hills Landfill site, and became operational in July 2005. The MRF was issued a revised SWFP on October 29, 2013 and is permitted to accept up to 4,400 tpd or a maximum of 24,000 tons per week of MSW. When CSD's waste-by-rail system becomes economically feasible to operate, the residual waste from Puente Hills MRF will be transported to the Puente Hills Intermodal Facility (its component facility) for transfer to remote/out-of-County landfills (Mesquite Regional Landfill) via the CSD's waste-by-rail system.

9.7.2.2 Innovative Waste Control Transfer Station – City of Vernon

Innovative Waste Control Transfer Station is a large volume transfer station located at 4133 Bandini Boulevard, in the City of Vernon. Consolidated Disposal Services Inc., LCC (DBA: Innovative Waste Control, Inc.) owns and operates the facility. The facility is an existing solid waste enterprise whose primary business includes materials recovery and transfer services. Innovative Waste Control, Inc., received a revised SWFP on August 26, 2002, and is currently permitted to receive up to 1,250 tpd of solid waste. Innovative Waste Control, Inc. explored the feasibility of establishing a WBR operation at its site.

Key Terms

Railroad Yards
Refer to all rail yards, intermodal, and rail-loading facilities.

Solid Waste Station
Refers to transfer and processing stations, materials recovery facilities, and/ or transfer stations as permitted by the applicable Local Enforcement Agency (LEA) and/or the California Department of Resources Recycling and Recovery (CalRecycle).

9.7.3 Railroad Yards in Los Angeles County

Existing and/or proposed new railroad yards including rail yards, rail-loading, and intermodal facilities in the County are listed in **Table 9-3**. Note that the facilities near the Port of Long Beach and Los Angeles are included in **Table 9-3** for completeness only but would most likely not be feasible for solid waste management or WBR operations due to the sensitivity of air pollution issues near these port areas.

These rail yards, rail-loading, and intermodal facilities are currently used for commercial purposes other than the transport of solid waste by rail. However, these facilities may potentially be permitted to store, sort, and transfer solid waste for rail transport. Furthermore, in the future, these facilities may 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 facilities. However, utilization of these facilities to handle or manage solid waste may require a SWFP and other types of permits.

9.7.4 Railroad Yards in Los Angeles County with Potential Solid Waste Management Capability

This section discusses the rail yards, intermodal, and rail-loading facilities in the County that may potentially be capable of handling and/or managing solid waste in conjunction with a waste-by-rail system to export waste to the out-of-County landfill sites discussed in Section 9.8 of this Chapter.

In the 1990s there were several proposals for development of then-existing and new railroad yards, intermodal, and rail-loading facilities (currently operating for other commercial purposes) for the transport of waste-by-rail cars. The “then existing” railroad yards, intermodal, and rail-loading facilities that were previously evaluated in the 1990s for potential capability to handle/manage solid waste were:

- Los Angeles Intermodal Facility (previously named “East Los Angeles Intermodal Facility”), City of Commerce (“project terminated”)
- Los Angeles (Hobart Yard), City of Vernon (“project terminated”)
- Puente Hills Intermodal Facility, City of Industry (previously named “Industry Intermodal Facility”)
- Intermodal Container Transfer Facility (previously named “Southern Pacific Intermodal Facility”), City of Long Beach (“project terminated”)

There are no proposed new rail yards, intermodal, or rail-loading facilities in the County with solid waste handling/management capabilities. Puente Hills Intermodal Facility (further discussed below) has been constructed and will become operational when it is economically feasible.

9.7.4.1 Puente Hills Intermodal Facility – City of Industry

CSD developed a rail yard and intermodal facility named Puente Hills Intermodal Facility (PHIMF), on a 17.2-acre site located at 2500/2520 Pellissier Place in the City of Industry. The PHIMF will be dedicated to serving CSD's WBR program, which includes loading full MSW containers onto railcars for transport to a remote landfill (Mesquite Regional Landfill). The PHIMF would process no MSW at the facility. The PHIMF would function only as a handling facility for containers carrying MSW that had been loaded elsewhere, such as a MRF.

When the railcars on the loading tracks are full of loaded containers, the switch locomotive would pull each section onto the departure track, where a full train would be assembled. UPRR locomotives would transport the full train via the UPRR main line to the Mesquite Regional Landfill.

The project includes three main features: (1) an intermodal facility to support the loading/unloading of up to two dedicated WBR trains per day; (2) off-street access to and from the site from the Puente Hills MRF; and (3) rail improvements within UPRR's right-of-way to allow the efficient operation of the intermodal facility.

The PHIMF would accept up to 4,000 tpd from Puente Hills MRF at the outset and up to 8,000 tpd of containerized solid waste at design capacity of two trains per day. At its permitted capacity, the Puente Hills MRF would only produce approximately 4,400 tpd of residual waste. As a result, the PHIMF would have the capacity to receive additional rail-ready shipping containers from other local MRFs, TSs, and CDI debris processing facilities.

The City of Industry prepared an Environmental Impact Report (EIR) to evaluate potential environmental impacts from the facility, certified the Final EIR on June 12, 2008, and approved a Land Use Permit (LUP) for the project on June 26, 2008. The PHIMF will start operations when it becomes economically feasible.

9.8 OUT-OF-COUNTY LANDFILLS POTENTIALLY AVAILABLE FOR OUT-OF-COUNTY DISPOSAL

In 1995, no waste was exported out of the County on a regular basis by rail cars, although there were some demonstration projects and other small-scale rail shipments of contaminated soil. In the last decade, several out-of-County landfill projects have been in the planning stages and much work has been done to establish a system that is competitive with current disposal practices.

However, in 2018, jurisdictions within the County exported a combined total of 5,120,871 tons (49 percent of total disposed waste generated by Los Angeles County) of solid waste, by truck, to out-of-County landfills. The majority of the waste exported went to surrounding counties. Orange, Riverside, San Bernardino, Ventura and other counties in California for disposal. For example, Orange (34%), Riverside (33%), San Bernardino (14%), and Ventura (15%) Counties, respectively, received about 96 percent of the 5,120,871 tons of exported solid waste from the County. The remaining 4% (199,944 tons) of exported solid waste was sent to Kern, San Diego, Solano, and Stanislaus Counties.

Currently, there are several existing and a newer out-of-County landfills that have the capability to accept waste by rail and/or truck from the 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 89 jurisdictions (the 88 cities and the unincorporated area in the County).

A number of existing and a newer out-of-County landfill sites in California have been identified in this Chapter for possible use by jurisdictions in the County to provide any needed additional disposal capacity for this planning period.

Since waste-by-rail is not yet economically feasible, most waste exported out of County would be done through waste-by-truck. Since waste-by-truck is more economical for transport of waste for distances less than 200 miles, the current waste exports would probably be sent to out-of-County landfills located within 200 miles of the County area.

The data in **Table 9-1** (out-of-County landfills currently used by County jurisdictions for export in 2018) shows that the average daily disposal rate[2] for the out-of-County landfills is 37,998 tpd; and the permitted daily disposal capacity[3] is 77,054 tpd. The data in **Table 9-1** shows that the total permitted daily disposal capacity of the identified out-of-County landfills (located within 200 miles of the County area) is 57,054 tpd.

As previously discussed, waste transported to these landfills would most likely be transported by truck. Therefore, the annual export need could be met through transportation by truck until the time CSD's WBR System project becomes operational and provides even more capacity.

9.8.1 Out-of-County Class III Landfills (Located in California) Potentially Available for Out-of-County Disposal

This section describes the factors used to identify and select potentially available landfills located inside California for use in out-of-County disposal.

9.8.1.1 Identification of Existing and Proposed New Out-of-County Class III Landfills (Located in California) Potentially Available for Out-of-County Disposal

The following factors were considered in identifying out-of-County landfills located within California that could potentially be relied upon for exporting solid waste from the County to offset the in-County disposal capacity export need during the 15-year planning period:

(1) The landfill is a permitted out-of-County Class III landfill that is currently receiving solid waste from the County; or

(i) The landfill: (a) is a permitted existing or proposed new major Class III landfill (as defined in the CSE), (b) is located in southern California, i.e., Imperial, Kern, Orange, Riverside, Ventura, San Bernardino, San Diego, Santa Barbara, San Luis Obispo, and Ventura Counties, and (c) has no restriction on accepting (and/or is not prohibited from) accepting solid waste from a jurisdiction in the County; and

(ii) The landfill has at least 15 years of remaining life during the planning period from 2018 to 2033, or has filed, or intends to file, or is considering the filing of applications for future landfill expansions of the existing facility within the planning period, which may potentially extend the remaining life beyond the planning period; and

2 Disposal rate is based on the currently available data on record. The total average daily disposal rate does not include the disposal rates shown as "---" or not available.

3 See footnote number 2.

(iii) Whether the landfill (for those landfills located over 200 miles from the County) has potential for rail access or can be integrated into the County's WBR system but with the understanding that truck transport can still be an option since the transportation mode will depend on whichever mode is more cost effective.

9.8.1.2 Newer Out-of-County Class III Landfills (Located in California) Potentially Available for Out-of-County Disposal

In August 2000, CSD entered into a purchase and sale agreement on the fully-permitted rail haul landfill in California described below, Mesquite Regional Landfill.

Mesquite Regional Landfill

Mesquite Regional Landfill is a Class III landfill located in Imperial County with a maximum permitted capacity of 20,000 tpd. The CSD closed escrow on the fully permitted Landfill in December of 2002. Since then, the CSD has completed long-term site planning, followed by design and construction of all the infrastructure needed for site operations. The Landfill has been capable of receiving refuse since the end of 2008. By the end of 2011, the rail yard and spur were completed and capable of receiving refuse by rail.

Mesquite Regional Landfill has a disposal capacity of 1.1 billion cubic yards and a lifespan of approximately 100 years at the 20,000 tpd daily rate. Southern California communities can transport 20,000 tpd to the Landfill by a combination of train or truck (as described below), with up to 1,000 tpd of that capacity reserved for use by Imperial County jurisdictions.

In 2011, the Conditional Use Permit (CUP) #1036-91 was amended to allow 4,000 tpd of out of county waste to be trucked to the Landfill. Additionally, the Landfill can receive 600 tpd of non-hazardous incinerator ash from Los Angeles County. Rail operations are most efficient when unit trains are loaded with 4,000 tons of refuse. The amendment to allow waste delivery by truck avoids inefficient and costly rail operations transporting fragments of a unit train. See **Table 9-1**, **Fact Sheet 9-1**, and **Figure 9-1** for more detailed information on the Landfill.

9.8.1.3 Existing Out-of-County Class III Landfills (Located in California) Potentially Available for Out-of-County Disposal

The existing out-of-County landfills in California that have been identified as potentially viable for exporting solid waste from the County based on usage in 2018 are shown in **Table 9-1**.

9.9 OTHER POTENTIALLY AVAILABLE OUT-OF-COUNTY SOLID WASTE DISPOSAL FACILITIES

Solid waste exported out of the County may possibly end up in other out-of-County solid waste facilities other than Class III landfills either for intermediate transfer and/or processing or final deposition. For example, solid waste exported out of the County could potentially be taken to out-of-County transfer stations, inert waste landfills, alternative technology facilities (e.g., conversion technology and transformation facilities), etc.

9.10 OPPORTUNITIES FOR OUT-OF-COUNTY DISPOSAL

While jurisdictions in the County should strive to increase waste diversion activities and provide adequate in-County solid waste disposal 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 in-County disposal capacity. The out-of-County disposal option was greatly enhanced with the passage of Assembly Bill 845 (AB 845), which became effective on September 25, 2012. AB 845 prohibits an ordinance enacted by a city or county from otherwise restricting or limiting the importation of solid waste into a privately-owned solid waste facility in that city or county based on place of origin. However, a jurisdiction should carefully consider these issues when evaluating out-of-County disposal as a part of the jurisdiction's solid waste management strategy.

9.10.1 Flow Control-Restrictions/Bans on the Importation of Solid Waste

Jurisdictions throughout California and the United States are typically 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 or communities. These restrictions on waste importation may take the form of a "wasteshed," a 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 by the host jurisdiction.

Under current federal law, solid waste is considered an article of interstate commerce and, therefore, governed by the Commerce Clause of the United States Constitution. Consequently, states and local jurisdictions (e.g., cities and counties) are generally restricted from interfering with the free flow of solid waste across jurisdictional boundaries.

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. For example, the United States Supreme Court ruled, in United Haulers Association, Inc., et al., v. Oneida-Herkimer Solid Waste Management Authority, et al., that a jurisdiction has the authority to require trash haulers to deliver solid waste to a particular waste processing facility owned by the jurisdiction.

9.10.1.1 Solid Waste Import Restrictions by Los Angeles County

As previously indicated, the objective of the CSE is to provide for adequate disposal capacity to handle the needs of County jurisdictions, preferably within the County, while also recognizing that out-of-County disposal capacity is essential. As such, imposing restrictions on the importation of solid waste into the County may cause out-of-County jurisdictions to reciprocate by also placing restrictions on solid waste importation from jurisdictions in the County for disposal at facilities in their jurisdictions.

This could have a negative impact on the County due to its reliance on out-of-County disposal capacity, and in the event that any expansions of in-County facilities (see **Chapter 7**) and proposed alternative technology facilities (e.g., conversion technology and transformation) (see **Chapter 5**) are not developed. Therefore, efforts must be made to ensure that the current flexibility regarding importation/exportation of solid waste is maintained in the County.

Key Terms

Host Fees
Refer to fees paid by one jurisdiction to another jurisdiction for the privilege of utilizing their landfills for the disposal of solid waste. The fee is paid by waste haulers on each ton of solid waste disposed.

9.10.1.2 Solid Waste Import Restrictions by Out-of-County Landfills and Jurisdictions

Solid waste exported out of the County would most likely be disposed in landfills located in neighboring counties, but some waste may also be exported to other counties in California.

However, a number of neighboring counties have placed restrictions or limitations on importation of solid waste into their jurisdictions or to particular landfills within their jurisdictions. Such restrictions or limitations may directly affect the export of waste from the County into those jurisdictions or landfills, which should be considered in identifying potential out-of-County landfills. However, it should be noted that absence of an import restriction today does not necessarily guarantee the availability of the particular disposal capacity in the future, and vice versa.

9.10.2 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. The agreement provides 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. Recent trends favor granting 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.

For example, Orange County has an import agreement that began on December 31, 1997, with Republic Industries, Inc.; Burrtec Waste Industries, Inc. (Burrtec)/EDCO Disposal Corporation (EDCO); and CSD, to dispose of waste collected from jurisdictions within Los Angeles County at landfills located in Orange County.

Under each agreement: (1) Burrtec/EDCO is to dispose of a minimum of 161,500 tons per year at Olinda Alpha Sanitary Landfill and 93,500 tons per year at Prima Deshecha Sanitary Landfill; (2) Republic Industries is to dispose of a minimum of 357,000 tons per year at Olinda Alpha Sanitary Landfill; and (3) CSD is to dispose of a minimum of 255,000 tons per year at Frank R. Bowerman Sanitary Landfill.

The export agreement(s) for: (1) Olinda Alpha Sanitary Landfill with Republic Industries and Burrtec/EDCO, (2) Prima Deshecha Sanitary Landfill with Burrtec/EDCO, and (3) Frank R. Bowerman Sanitary Landfill with CSD will expire on June 30, 2025.

9.10.3 Economic Factors

The cost to the residents and businesses ultimately determines where jurisdictions decide to dispose of their solid waste. Jurisdictions must evaluate total system costs, which typically include collection, transportation, processing, and disposal, 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 potentially 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 increases.

Additionally, as a means to generate revenue, a jurisdiction where a solid waste disposal facility is located may impose host fees and/or other taxes on imported waste. 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. A jurisdiction must carefully consider the possibility of any such action by the host jurisdiction and its economic impact on the jurisdiction exporting the solid waste when evaluating the out-of-County disposal option as a part of the jurisdiction's waste management strategies.

Based on the foregoing, it becomes clear that jurisdictions in the County should not rely solely on out-of-County disposal to meet the disposal needs of their residents and businesses. Instead, jurisdictions should view out-of-County solid waste disposal as the last resort to compensate for potential in-County disposal capacity shortfalls. Diverting waste, developing alternative technologies, and expansion of in-County facilities are the primary alternatives to any disposal capacity shortfalls the County may experience. A reliance on exporting waste to out-of-County landfills may result in a precarious situation where County jurisdictions must pay increased fees and transportation costs beyond their control. Therefore, one of the CSE's goals is to ensure that in-County disposal capacity continues to be available so that jurisdictions can make economically efficient policy decisions about out-of-County disposal.

Key Terms

Export Agreement
Refers to a negotiated agreement between a jurisdiction or its waste hauler and a solid waste disposal facility owner/operator for a solid waste disposal facility located outside that jurisdiction.

9.10.4 Environmental Factors

Exportation of solid waste to out-of-County facilities may pose several environmental challenges to jurisdictions.

9.10.4.1 Waste-by-Truck

Air pollution and traffic congestion issues may result from increase in the number of trucks needed to transport solid waste to out-of-County and/or remote landfills, as well as the leaking of automotive fluids and spilled waste due to vehicular accidents. The increased level of traffic may also lead to degradation of the road system and the environment.

9.10.4.2 Waste-by-Rail

Air pollution due to the excessive idling of train locomotives may be a problem. Also, WBR may result in traffic congestion caused by the lack of adequate grade separations at railroad crossings and vehicles on the streets/roads being backed up for extended periods of time. Other environmental issues may also need to be addressed in permitting and developing the infrastructure (e.g., rail yards, intermodal facilities, TSs, etc.) needed to transport waste out of the County.

NEW OUT-OF-COUNTY CLASS III LANDFILL

FACTSHEETS AND FIGURES

Fact Sheet 9-1: Mesquite Regional Landfill

1. PROJECT NAME

Mesquite Regional Landfill

2. Project Proponent

County Sanitation Districts of Los Angeles

3. Facility Type

Class III landfill

4. Location

Approximately 5 miles northeast of Glamis on Highway 78 in Imperial County, and approximately 220 miles southeast of the metropolitan Los Angeles area.

5. Size

Proposed Disposal Area:	2,290 Acres
Total Acreage of Site:	4,250 Acres

6. Volumetric Capacity

Daily:	20,000 Tons (permitted)
Facility Capacity:	600,000,000 Tons (1,100,000,000 Cubic Yards)
In-Place Density	No Information Available

7. Life Expectancy

74 Years

8. Current Status

Previously a disposal capacity shortfall was expected to occur in the County when the Puente Hills Landfill closed in 2013. But, due to the economic downturn that significantly reduced tonnage Countywide and the successful permitting of additional nearby landfill capacity, there will be adequate disposal capacity within the region well into the future. While there is adequate disposal capacity within the region, it is unlikely that customers will pay the higher cost of transporting waste over a 200-mile distance from Los Angeles County to a remote landfill. Therefore, utilization of the waste-by-rail system is not anticipated until local capacity is diminished. Until needed, the waste-by-rail system will be in standby mode, along with the option of truck hauling, to transport waste to the remote landfill.

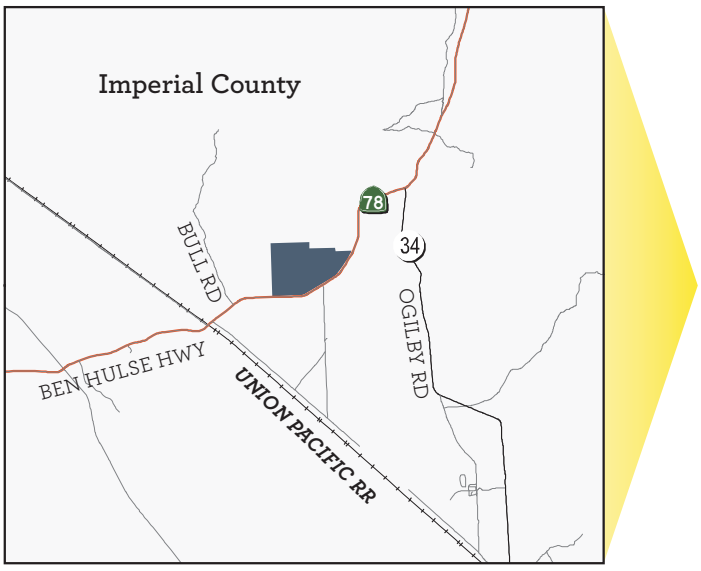


FIGURE 9-1: Mesquite Regional Landfill

LEGEND

- Property Boundary
- Existing Disposal Area

N

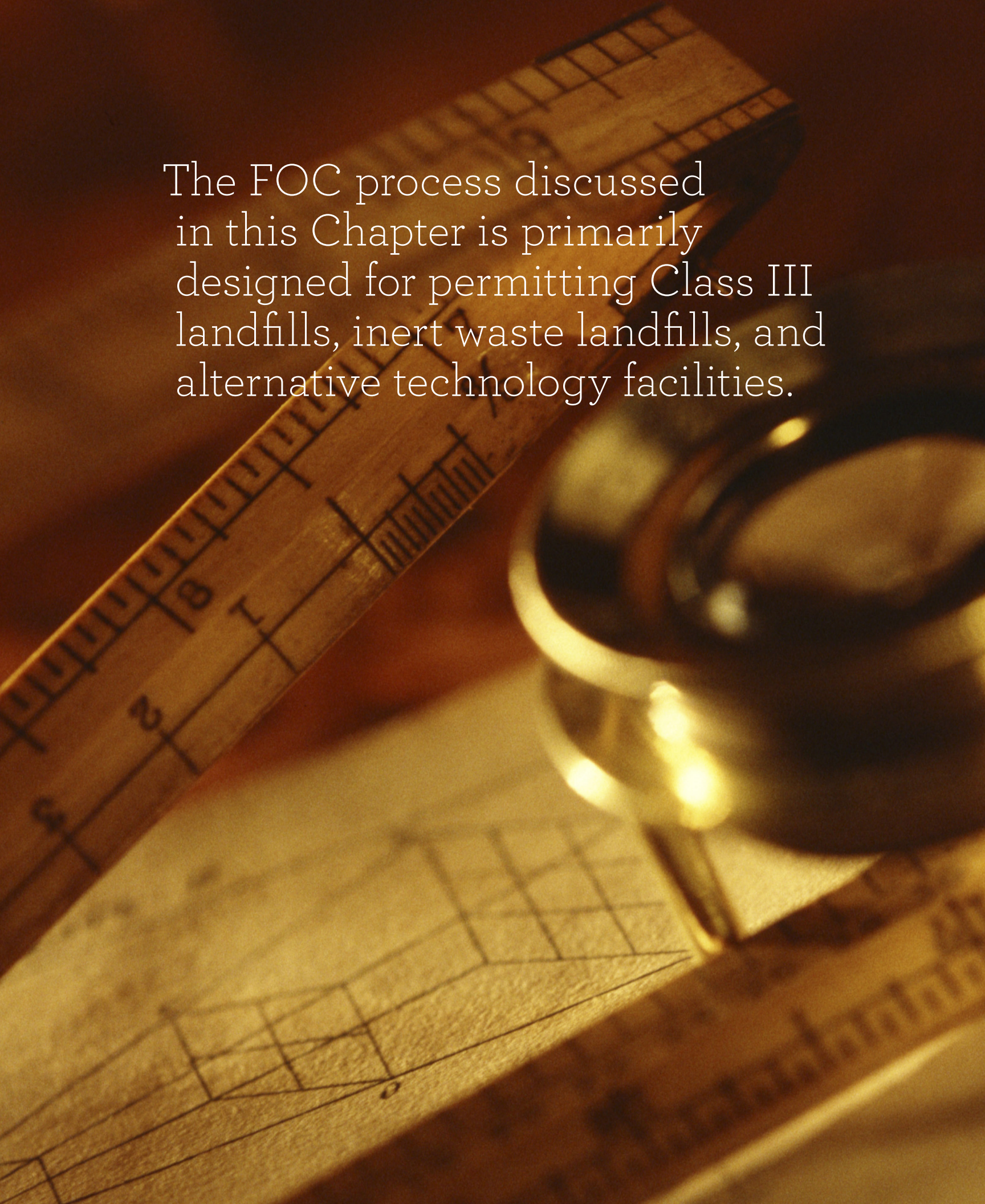
5,100 ft.

Source: Los Angeles County Department of Public Works, (Sep.

This map is for planning purposes only. Los Angeles County expressly disclaims any liability for any inaccuracies which may be present in this map.

10

Finding Of Conformance



The FOC process discussed in this Chapter is primarily designed for permitting Class III landfills, inert waste landfills, and alternative technology facilities.

10.0 FINDING OF CONFORMANCE

10.1 PURPOSE

The purpose of this Chapter is to describe the procedure for obtaining a Finding of Conformance (FOC) with the Los Angeles County Countywide Siting Element (CSE), for Class III landfills, inert waste landfills, and alternative technology facilities (e.g., conversion technology, transformation), from the Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force (Task Force) in compliance with the FOC Proposal Submittal Requirements listed in **Table 10-1** of this Chapter.

The FOC process is intended to: (1) provide a mechanism for the inclusion of new facilities and/or expansions of existing facilities into the CSE; (2) ensure that the Siting Criteria contained in the CSE are applied, and that all new facilities and/or expansion of existing facilities are consistent with the CSE and its Siting Criteria (as listed in **Chapter 6** and **Attachment 6A** of the CSE); and (3) provide a forum where the public, local jurisdictions, public organizations, businesses, and industry may voice their opinions regarding each individual project.

The specific requirements of the FOC process are consistent with the statutes and regulations such as California Public Resource Code (PRC) Sections 50000, 50000.5, and 50001; and California Code of Regulations (CCR), Title 14, Section 18756.

10.2 DEFINITIONS

Definitions of key terms used in this Chapter are included when referenced. For a more complete listing of acronyms and definitions, please refer to the List of Acronyms and Glossary of Terms at the beginning and end of this document, respectively.

Key Terms

Expansion
Refers to a solid waste facility which has: (1) an increase in the physical dimension of the facility; (2) an increase in the permitted daily disposal rate, throughput, or intake/processing capacity; (3) an extension or renewal of a permit whose expiration date may affect the operation of the facility, whichever is applicable; and/or (4) any permitted activity that results in an increase in permitted disposal capacity. For a landfill, 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 (at any depth) in which solid waste may be disposed to areas contiguous or adjacent to the area of the existing operation.

10.3 SPECIFIC REQUIREMENTS

The scope of the FOC process is broadly described in other statutes and regulations related to CSE general requirements[1]; the role and authority of the Task Force[2]; CSE goals and policies[3]; CSE landfill description and information requirements[4]; CSE siting criteria[5]; CSE approval process[6]; CSE amendment[7], etc. The requirements in the FOC process are additional requirements apart from the statutes and regulations as described below.

Flowcharts of the various components of the solid waste disposal facility siting process, including the FOC process, are included in **Flowcharts 6-1** through **6-6** of CSE **Chapter 6 ("Facility Siting Criteria")**. The FOC Proposal Submittal Requirements are listed in **Table 10-1** of this Chapter, and the siting criteria and siting factors for disposal facilities are respectively included in Appendices 6-A and **Table 6A-1** of CSE **Chapter 6**.

1 Regulation related to CSE General Requirements such as CCR, Title 14, Section 18755.
2 Statutes and regulations related to the role and authority of the Task Force such as PRC Section 40950 (a)(d); and CCR , Title 14, Sections 18756.7 (a)(1) and 18777(a).
3 Regulation related to CSE Goals and Policies such as CCR, Title 14, Section 18755.1 (c) and (d).
4 Statutes and regulations related to CSE landfill description and information requirements such as PRC Section 50001 (c); and CCR, Title 14, Sections 18755 (a), (b), (c), and (d), 18755.5 (a) and (b), 18756.1 (a) and (b), and 18756.5 (a) and (b).
5 Regulations related to CSE siting criteria such as CCR, Title 14, Sections 18755 (d), 18756 (a), (b), and (d), and 18756.7 (a)(1).
6 Statutes related to CSE approval process such as PRC Sections 41720 and 41721.
7 Statutes and regulations related to CSE amendment such as PRC Sections 41721.5 (b), 50001 (a)(1)(2) and (c); and CCR, Title 14, Sections 18756 (e) and 21570.

The major statutes and regulations with specific FOC requirements include, but are not limited to, the following:

- **PRC Section 50001 requires that:**

(a) Except as provided by subdivision (b), after a countywide or regional agency integrated waste management plan has been approved by the California Department of Resources Recycling and Recovery (CalRecycle) pursuant to Division 30 (commencing with Section 40000), no person shall establish or expand a solid waste facility, as defined in Section 40194, in the county unless the solid waste facility meets one of the following criteria:

(1) The solid waste facility is a disposal facility or a transformation facility, or an EMSW conversion facility, the location of which is identified in the countywide siting element or amendment thereto, which has been approved pursuant to Section 41721.

(2) The solid waste facility is a facility which is designed to, and which as a condition of its permit, will recover for reuse or recycling at least 5 percent of the total volume of material received by the facility, and which is identified in the nondisposal facility element or amendment thereto, which has been approved pursuant to Section 41800.

(b) Solid waste facilities other than those specified in paragraphs (1) and (2) of subdivision (a) shall not be required to comply with the requirements of this section.

(c) The person or agency proposing to establish a solid waste facility shall prepare and submit a site identification and description of the proposed facility to the task force established pursuant to Section 40950. Within 90 days after the site identification and description is submitted to the task force, the task force shall meet and comment on the proposed solid waste facility in writing. These comments shall include, but are not limited to, the relationship between the proposed solid waste facility and the implementation schedule requirements of Section 41780 and the regional impact of the facility. The task force shall transmit these comments to the person or public agency proposing establishment of the solid waste facility, to the county, and to all cities within the county. The comments shall become part of the official record of the proposed solid waste facility.

(d) (d) The review and comment by the local task force shall not be required for an update to a nondisposal facility element.

- **CCR, Title 14, Section 18756 requires that:**

(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:

(1) Environmental Considerations (for example: geology and soils including faulting and seismicity, ground settlement, surface hydrology and groundwater, quantity and quality of groundwater, surface water, surface water contamination, drainage patterns, etc.);

(2) Environmental Impacts (for example: air quality including climatic and meteorological conditions and emissions, visibility, and cultural resources including regional setting, inventory and significance, paleontological resources including inventory and significance, vegetation, and wildlife, etc.);

(3) Socioeconomic Considerations (for example: transportation including local and regional transportation systems, highways and major roadway corridors, rail transportation and corridors, land use including regional and local land uses such as military use, mineral extraction, agriculture, recreation/tourism, compatibility with existing and future land uses, consistency with County general plan(s) and future post-closure uses, economic factors including estimates of development costs and operational costs, etc.);

(4) Legal Considerations (for example: federal, State, and local minimum standards and permits, liabilities, and monitoring, etc.);

(5) Additional criteria as may be included by the county, cities, regional agency and member agencies approving the Siting Element.

(b) The CSE must describe the process instituted Countywide to confirm that the criteria set forth in Section 18756(a) are included as a part of the solid waste disposal facility siting process.

(c) The CSE shall be approved by the County and the cities as described in Section 41721 of the PRC.

(d) No solid waste disposal facility in the CSE shall be established that does not satisfy the minimum criteria that are adopted in the CSE pursuant to Section 18756 (a).

(e) A solid waste disposal facility not described within this CSE shall not be established unless an amendment to the CSE has been approved identifying and describing the facility, and the date of its inclusion in the CSE pursuant to PRC Section 41721.5.

10.4 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. Prior to implementation of the California Integrated Waste Management Act of 1989, Assembly Bill 939 (AB 939), as amended (Section 40000 et seq. of PRC), the former Los Angeles County Solid Waste Management Committee was the liaison for the former CWMB and CalRecycle for making a determination of consistency and for issuance of an FOC with the former Los Angeles County Solid Waste Management Plan (CoSWMP).

Prior to approval of the CSE by CalRecycle (in June 24, 1998 (and the Countywide Integrated Waste Management Plan (CoIWMP) in June 23, 1999), and consistent with PRC Section 50000, the Task Force issued FOCs with the 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.

After approval of the CSE in 1998, and consistent with PRC Section 50001, the County (through the Task Force), has ensured that the Siting Criteria contained in the CSE are applied and that disposal facilities are in conformance with the CSE through the FOC process.

10.5 APPLICABILITY OF FINDING OF CONFORMANCE

The FOC process discussed in this Chapter, and the siting criteria, siting factors and permit processes described in **Chapter 6**, and **Attachment 6A**, are primarily designed for permitted Class III landfills, inert waste landfills, and alternative technology facilities (e.g., conversion technology, transformation). These standards are the most stringent standards developed for solid waste facilities in Los Angeles County. However, for the purposes of this CSE, similar standards are proposed for alternative technology facilities (e.g., conversion technology) and other alternative and emerging technology facilities, pending clarification of the regulatory status of these facilities.

New facilities, expansions of existing facilities, or existing facilities which institute a **"significant change"** to their operation (except those exempted below), must obtain an FOC with the CSE granted by the Task Force. The project proponents must submit proposals to the Task Force for an FOC after obtaining the land use/conditional use permit, but prior to obtaining a Solid Waste Facility Permit (SWFP) approval. **Table 10-1** lists the minimum components that a facility proposal must contain.

The following types of solid waste land disposal and/or alternative technology facilities (e.g., conversion technology, transformation) and operations are exempt from obtaining an FOC with the CSE.

- Owner-operated inert waste landfills which accept inert waste generated by the owner, and providing the facility is allowed (as determined by the appropriate Local Enforcement Agency (LEA)) to operate without a Full or Registration Tier Solid Waste Facility Permit;
- Drilling mud disposal sites for short-term use; or
- Farm/ranch disposal sites for one- or two-family use.

However, the ultimate enforcement power over land use decisions, including FOC requirements, remains with the local land use authority, unless delegated under a specific authority, to other entities such as the Task Force (where necessary to safeguard public health and safety).

10.6 FINDING OF CONFORMANCE PROPOSAL SUBMITTAL REQUIREMENTS

In accordance with the CSE, the owner/operator of any facility requiring an FOC, shall submit a Proposal to the Task Force requesting the granting of the FOC, according to the protocols outlined in the FOC Proposal Submittal Requirements in **Table 10-1**.

The FOC Proposal Submittal Requirements are primarily designed for permitted Class III landfills, inert waste landfills, and alternative technology facilities (e.g., conversion technology, transformation). These requirements are the most stringent standards developed for solid waste facilities in Los Angeles County. However, for the purposes of this CSE, similar requirements are proposed for alternative technology facilities (e.g., conversion technology, transformation), pending clarification of the regulatory status of these facilities.

However, for conversion technology facilities, and other alternative and emerging technology facilities, additional and more specific requirement may be required by the Task Force on a case-by-case basis, where necessary to address the unique characteristics of these facilities.

10.7 FINDING OF CONFORMANCE ADMINISTRATIVE PROCESS

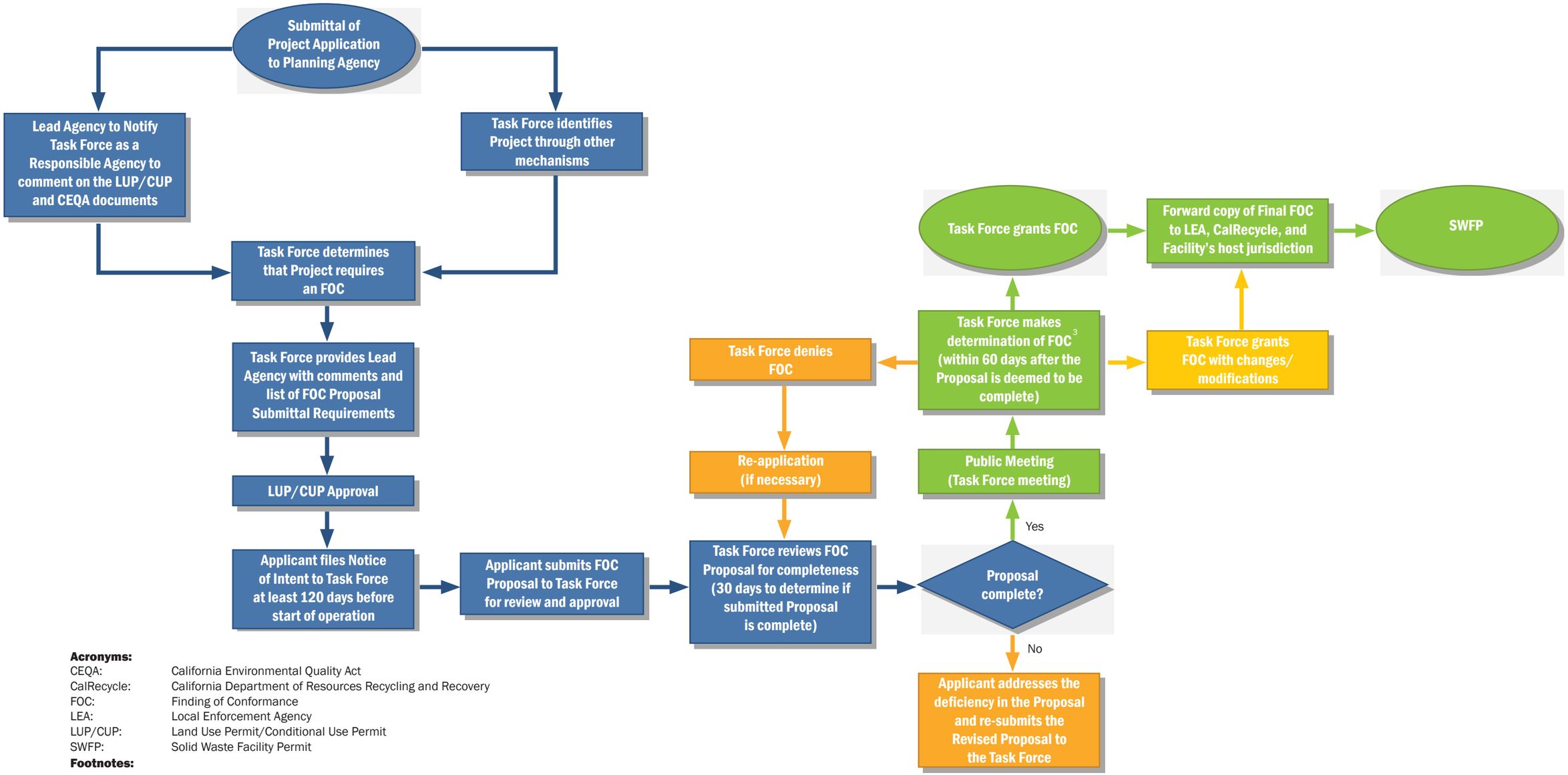
The FOC Administrative Process is illustrated in the FOC Process Flowchart (see **Flowchart 10-1**) and described in the steps below.

Key Terms

Significant Change
Refers to changes in the design or operation of a disposal such as: (1) an increase in maximum amount of permitted tonnage of all waste received on a daily basis or during another time period; (2) an increase in the facility's permitted acreage; (3) an increase in the permitted hours of operation; and (4) for landfills, an increase in permitted volume (airspace) or quantity (tonnage), disposal footprint, permitted (final grade) or maximum overall elevation.

Typically, these changes may require: (a) compliance with the requirements of California Environmental Quality Act (CEQA); (b) issuance or modification of a facility's land use permit/conditional use permit, and/or Waste Discharge Requirements; (c) issuance of a Revised Solid Waste Facility Permit (SWFP) pursuant to CCR Title 27, Section 21665(e) as defined in Sections 21620(a)(4). Specifically excluded are any changes in design or operation that are necessitated by regulatory changes or changes to permits that are ministerial or non-material in nature.

FLOWCHART 10-1: Finding of Conformance (FOC)[1] Process



Acronyms:

CEQA:	California Environmental Quality Act
CalRecycle:	California Department of Resources Recycling and Recovery
FOC:	Finding of Conformance
LEA:	Local Enforcement Agency
LUP/CUP:	Land Use Permit/Conditional Use Permit
SWFP:	Solid Waste Facility Permit

Footnotes:

1. Finding of Conformance with Los Angeles County Countywide Sting Element and Countywide Integrated Waste Management Plan.
2. The Proposal will not be considererd to be complete without the following: Certified Final Environmental document, the Land Use/Conditional Use Permit, consistency with the local jurisdiction's General Plan, and all other Requirements listed on Table 10-1 of Chapter 10.
3. Any Project Proponent that has been granted a FOC and fails to meet the conditions required, the Task Force may revoke the FOC. The reason for the revocation shall be documented in the Notice of Revocation to the local jurisdiction, appropriate local Enforcement Agency, California Department of Resources and Recovery, and the Project Proponent.

Public Works
LOS ANGELES COUNTY

FLOWCHART 10-1: Finding of Conformance (FOC)1 Process

10.7.1 Finding of Conformance Notice Process

The Task Force, in coordination with the County, will provide notices and comments to project proponents and lead agencies regarding the FOC Process/Requirements early in the project/facility permitting process.

10.7.2 Finding of Conformance Review Process

The Task Force shall review and take action on the FOC Proposal for each project submitted that meets the requirements of the CSE. The Task Force has 30 days from the submission date to determine if the Proposal is complete. Once a Proposal has been determined to be complete, the Task Force has 60 days to take action upon the FOC. However, after the 60 days review period, an extension for an agreed upon period can be granted by mutual consent between the Task Force and Project Proponent. The Proposal will not be considered to be complete without: (1) a Certified Final Environmental document pursuant to CEQA; (2) a land use/conditional use permit, and consistency with the local jurisdiction's General Plan; and (3) all the other documentation listed in **Table 10-1** of this Chapter.

In the review process, the Task Force is responsible for the following:

1. Considers the project in relation to:
   (a) The goals, policies, and objectives of the CSE/CoIWMP;
   (b) The policies of CalRecycle/appropriate LEA.
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 Task Force shall request local jurisdictions to comment on project implementation, proposed transportation routes, and planned end uses of the land (for landfill sites).
4. Examines the projected waste flow to the proposed project and the analyses of Countywide/regionwide impacts (including water and energy).
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 similar, existing, and planned projects in the same general area as the proposed project.
7. Determines whether or not the jurisdiction 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's or county's applicable General Plan and with the CSE.
8. Determines whether or not the jurisdiction in which the site is located has incorporated comments provided by the Task Force during the Land Use Permit (LUP) and **CEQA** process, and made a finding (of consistency) that the establishment or expansion of the site is consistent with CSE.

10.7.3 Finding of Conformance Approval Process

Upon review of the proposed Project, the Task Force will convene a public meeting in order to approve or disapprove the FOC based on the following findings: (1) grant the FOC as submitted; (2) grant the FOC but with changes/modifications; (3) request additional information and/or analysis, and subsequently reconsider the revised proposal; or (4) deny the request for an FOC and state reasons for the denial.

Key Terms

California Environmental Quality Act (CEQA)
Refers to California's broadest environmental law enacted by the State legislature in 1970 and amended thereafter. CEQA sets forth a process for public agencies to make informed decisions on discretionary project approval. The process aids decision makers in determining whether any environmental impacts are associated with a proposed project. CEQA requires environmental impacts associated with a proposed project to be identified, disclosed, and avoided or mitigated to the maximum extent feasible. CEQA's five key objectives are to: (1) disclose to decision-makers and the public the significant environmental impacts of proposed activities; (2) identify ways to prevent or reduce environmental damage by requiring consideration of feasible alternatives or mitigation measures; (3) disclose to the public reasons for agency approvals of projects with significant environmental impacts; (4) promote interagency coordination; and (5) provide opportunities for and encourage public participation throughout the process.

10.7.3.1 Issuance of Finding of Conformance

The FOC will be issued after the Task Force has determined the proposed project has met all the requirements.

10.7.3.2 Denial of Finding of Conformance

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.

10.7.4 Revocation of Finding of Conformance

The Task Force may revoke an FOC if the Project proponent does not meet the conditions of the FOC. The cause of revocation shall be documented in the Notice of Revocation to the appropriate LEA, CalRecycle, and the Project Proponent.

10.7.5 Local Enforcement Agency/California Department of Resources Recycling and Recovery Notification

In accordance with PRC Section 50001, prior to granting a SWFP, the appropriate LEA (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 LEA and CalRecycle. The Task Force shall also forward a copy of the FOC to the jurisdiction in which the facility is located.

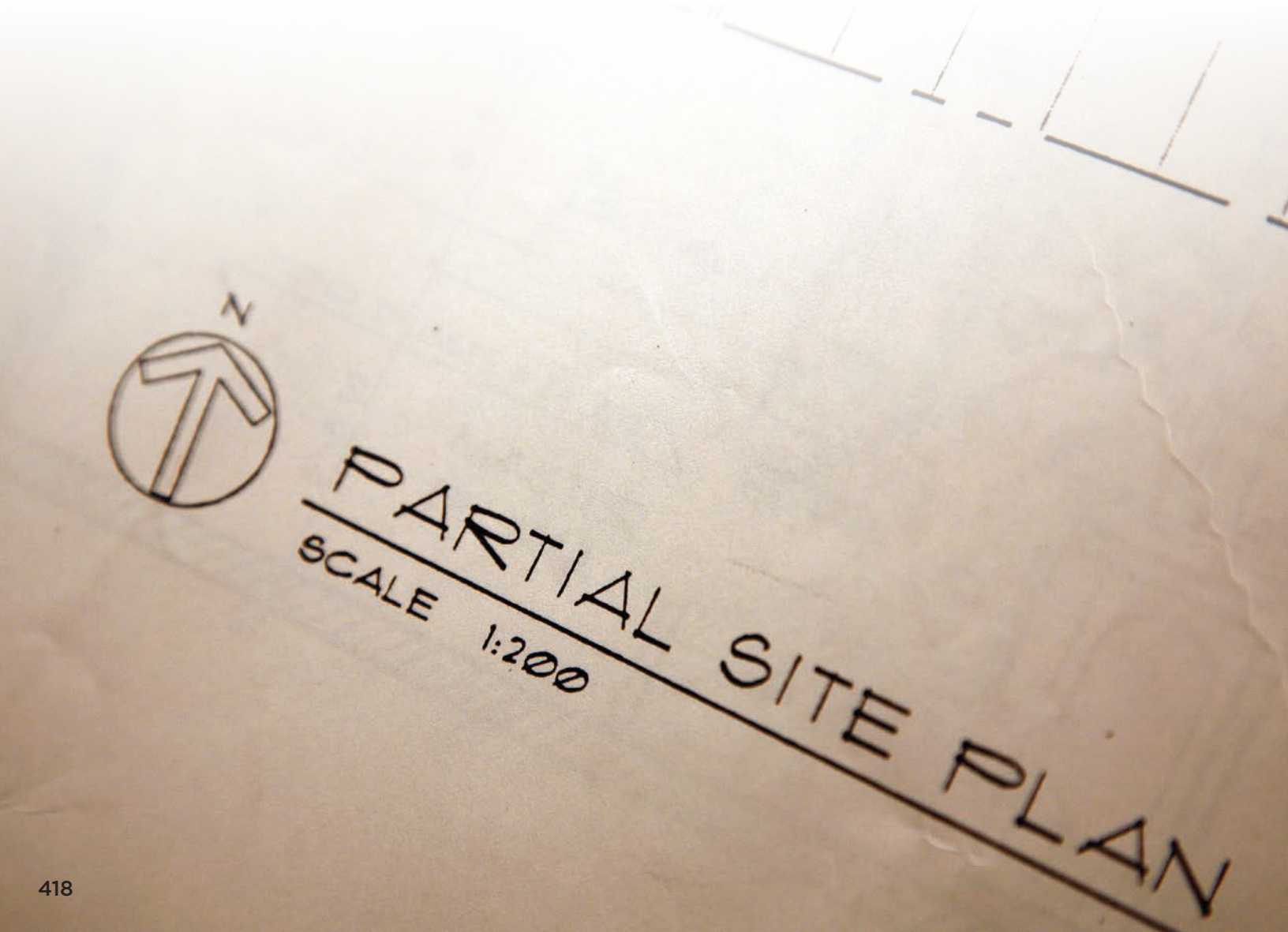


TABLE 10-1
FINDING OF CONFORMANCE (FOC) PROPOSAL SUBMITTAL REQUIREMENTS

TABLE 10-1: Finding of Conformance (FOC) Proposal Submittal Requirements

Applicant for Finding of Conformance (FOC) with the Los Angeles County Countywide Siting Element (CSE) shall submit an FOC Proposal to the Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force (Task Force). The Proposal shall contain, at a minimum, the following information and description of measures/programs to be implemented, including any additional information deemed necessary by the Task Force:

A. FACILITY OWNER/OPERATOR INFORMATION

1. Full/official name of facility.
2. Identity/name of each facility proponent, owner, and operator (if applicable, indicate which of the parties are private or governmental entities).
3. Name, phone and fax number, and email address of the official contact person for the facility.

B. FACILITY SITE INFORMATION

1. Identification of facility site location, including complete physical address of the facility, (including the City and County), and the longitude and latitude (in degrees) of the site.
2. Description of facility and facility site location.
3. Type and/or classification of the facility.
4. Property site acreage[1] (including permitted and unpermitted areas).
5. Disposal area acreage[2] (including permitted, unpermitted, active, inactive, closed, and post closure areas) for landfills.
6. Building and schematic process plan for other facilities.
7. Project design capacity or acreage as appropriate.

C. FACILITY OPERATION INFORMATION

1. Operational status (under construction, fully permitted, open, active, closed, post closure).
2. Description of types of waste material accepted, disposed, and/or managed at the facility, and types of waste not accepted at the facility.
3. Identification of waste sources and/or feedstock (as applicable).
4. Projection of waste quantity to be handled at start-up and at five-year intervals in facility's life.
5. Permitted, proposed, and/or changes in hours and days of operation.
6. Maximum daily permitted municipal solid waste (MSW) throughput (intake) capacity in tons per day (tpd) (or the units of measurement).
7. Average daily MSW throughput (intake) in tpd (or the units of measurement).
8. In-place solid waste density/compaction rate, where applicable.
9. Estimated closure and post-closure date, where applicable.
10. Estimated remaining (disposal) capacity (in cubic yards and/or tons), including the date the remaining disposal capacity was measured, where applicable.
11. Projected remaining life (in years) of the facility.

12. Identification of waste transport corridors and destinations.
13. Technology to be used for environmental control facilities.
14. Information on any significant ongoing or foreseeable litigation that may affect facility operations or result in closure of the facility.
15. Name of the LEA with jurisdiction over the facility, and the contact person.

D. FACILITY AND/OR PROJECT EXPANSION INFORMATION

1. Facility and/or project expansion implementation schedule (as applicable) including planned dates for construction start, construction completion, start-up, planned expansion, and closure.
2. Description of any proposed future expansion for the facility.
3. Additional life that will result due to the proposed expansion.
4. Additional MSW throughput (intake) in tons (or cubic yards) per day due to the proposed expansion.
5. Land use permit for the proposed expansion.
6. Certified Environmental Impact document for the proposed expansion.
7. Approximate date the proposed expansion capacity would most likely become available.
8. Planned end uses for the land or the facility site upon closure.

E. ANCILLARY FACILITY'S OPERATIONS AND OTHER PERMITTED USES AT THE SITE

Ancillary facility's operations and other permitted uses at the site include, but are not limited to, waste hauling, bin rental, green waste composting, and conversion technology, etc. The proposal shall include:

1. Identification of ancillary use/operation.
2. Description of ancillary use/operation.
3. Schematic process plan of ancillary use/operation.
4. Design capacity or acreage of ancillary use/operation.
5. Location of ancillary facility on the site plan.
6. Effective date of commencement of operation of ancillary facility.

Footnotes:

1 "Property site acreage" refers to the location or site of the real property on which a facility or disposal site, any part thereof, or any support structure exists or is proposed to exist, including any portion of such real property that is not occupied by the facility or any support structure but that is contained within the legal description of the land on which the facility is located as that description is set forth in the most recently recorded deed.

2 "Disposal area acreage" refers to the location, tract of land, area, or premises in use, intended to be used, or which has been used, for the disposal of solid wastes, as applicable to land disposal sites.

F. FLOW CONTROL INFORMATION

1. Information on whether MSW from jurisdictions outside of Los Angeles County are accepted for disposal at the landfill, or for management at the alternative technology facilities (e.g., conversion technology, transformation), and other types of facilities.

2. Description and/or reference to any MSW wasteshed or import restrictions that may restrict MSW from other jurisdictions.

3. Host fee[3] and/or other flow control[4] restrictions (codes, ordinances, or permit conditions) on solid waste coming from areas outside the jurisdiction in which the facility is located, and the amount of the host fee.

4. Quantity (in tons and/or cubic yards per day) of MSW that the facility can accept from other counties or States.

G. MITIGATION MEASURES AND PROGRAMS

In addition to the CEQA Mitigation and Monitoring Program, the facility owner/operator must implement the following measures/programs:

1. The project proponent shall implement and comply with the following seismic monitoring requirements:

    a. Complete installation of an accelerometer onsite to measure earthquake/seismic ground motions by a date to be established by the Task Force. Provide a set of as-built plans signed and sealed by a California Registered Civil Engineer to the LEA and the Environmental Programs Division (EPD) of the Los Angeles County Public Works (Public Works).

    b. Following a major earthquake/seismic ground motion of magnitude 5.0 or greater, as recorded by the closest ground-motion monitoring device as maintained by the California Division of Mines and Geology, thoroughly survey the landfill for primary and secondary surface expressions of seismic activity (such as surface ruptures, landslides, change in spring flows, liquefaction, etc.) and other types of damage for the other facilities. Submit a damage assessment report on the results of the survey to Public Works (through EPD), and the LEA for review. The assessment report must describe and discuss all features, including damage to the site and infrastructure caused by the earthquake and measures that will be taken to mitigate the impact.

2. All Class III landfill owners/operators must submit a description of the programs that will be implemented at the facility to:

    a. Minimize disposal of inert waste at their facility.

    b. Maximize density of disposed materials.

    c. Beneficially use and reuse materials at the site.

    d. Use appropriate materials, other than soil, as landfill daily cover, subject to approval of the appropriate LEA, CalRecycle, and other appropriate permitting agencies.

    e. Support the County Mass Debris Removal and Recycling Plan and Programs.

Footnotes:

3 "Host fees" refer to fees paid by one jurisdiction to another jurisdiction for the privilege of utilizing their landfills for the disposal of solid waste. The fee is paid by waste haulers on each ton or cubic yard of solid waste disposed.

4 "Flow controls" are legal provisions that allow State and local governments to designate the places where MSW is taken for processing, treatment, or disposal. Flow controls may take the form of a "wasteshed" restriction; limits on the amount of waste from individual jurisdictions; host fees; and/or outright bans on the importation of solid waste.

f. Support development of in-County alternative technology facilities (e.g., conversion technology).

g. Support planned market for materials/energy recovered from resource recovery projects.

h. Institute waste diversion and salvage operations in compliance with all applicable rules and regulations.

i. Fully comply with the landfill Waste Plan Conformance Requirements.

3. All solid waste disposal facility operators must submit a description of the programs that will be implemented at the facility to:

a. Obtain and provide to the County all data necessary for cities in Los Angeles County and the County to comply with the mandates of AB 939 and SB 1016 by using the Los Angeles County Solid Waste Information Management System.

b. Divert or salvage waste (e.g., description of proposed waste diversion/salvage programs to be operated at the facility).

c. Prevent disposal of hazardous and other unacceptable waste at the site (e.g., a waste load-checking program).

d. Discourage transportation of uncovered waste to the facility through vehicle tarping enforcement at the gate. Describe a tarping program designed to prevent the accidental release of litter from vehicles entering and leaving the site.

e. Control litter on the streets, highways, and properties surrounding the disposal facility.

The Proponent shall adopt a program that uses the most effective available methods and technology to prevent waste that has entered an area under the Proponent's control from escaping the area in the form of litter. Notwithstanding any other provision of this condition, or of this grant, for landfill sites, the Proponent shall cease accepting incoming waste during high wind conditions if, despite the methods and technology used, Proponent cannot confine waste to areas under his control.

The Proposed litter control program for landfill sites shall include the following requirements, unless the LEA requires otherwise:

i. Facility personnel shall continuously patrol the access road to the Facility scales during the Facility's hours of operation and remove any litter found during the patrol;

ii. Proponent shall immediately remove all debris found on or along the entrance to the Facility and/or working face access roads;

iii. At every active working face area, the Proponent shall install a primary portable litter fence eight feet in height, and also a secondary fence four feet in height behind the primary fence (when wind conditions dictate the need for a secondary fence).

iv. The Proponent shall employ any and all additional measures as necessary to control litter. On windy days, and when the fences are not sufficient, Proponent shall locate the working face within areas of minimal wind exposure or shall close the working face, if so required by the LEA. The LEA may require additional measures deemed necessary to effectively control litter.

H. PERMITS AND DOCUMENTATION

Provide copies of the most current and approved updates of the following permits, documents, and information, in hard copy and digital format:

1. Land Use or Conditional Use Permit, or its equivalent.
2. Joint Technical Document.
3. Waste Discharge Requirement.
4. Air Quality Permit.
5. SWFP.
6. Final Certified Environmental documentation (e.g., Initial Study, Negative Declaration, Categorical Exemption, or an Environmental Impact Report) including all Notices of Determinations showing the posting dates with the County/City Clerk and the State Office of Planning and Research.
7. Information and Operations Plan for meeting applicable permit/regulatory requirements.
8. Demonstration of compliance with Siting Criteria (Appendix 6-A), and other requirements as established in Chapter 6 of the CSE.
9. Demonstration of compliance with General Plan consistency requirements as required by PRC Sections 50000.5 and 50001, or as applicable.

   In addition, a copy of: (1) the appropriate land use element of the host jurisdiction showing the land use and zoning designation for the facility site and the surrounding parcels to demonstrate compatibility with surrounding land use; and (2) other documentation to demonstrate that the facility or expansion thereof, is consistent with the applicable local jurisdiction's General Plan.
10. Written documentation, including site plans, that adequately describes any proposed future expansion of the facility.
11. Completed Landfill, Transformation, or Solid Waste Facility Survey Form.
12. Any previous FOC Approval obtained from the Task Force.

I. FACILITY MAPS AND PLANS

1. All Facilities

   Provide a set of the most current maps and plans, drawn to scale, clearly identifying, but not limited to, as much of the following information (as applicable):

   a. Facility site, including property lines and boundaries.
   b. All structures such as scale house, administration buildings, locations of any above ground or underground storage tanks, gas or wastewater treatment facilities, etc.
   c. Landmarks/monuments/street corners close to the facility location.
   d. Facility entrance.
   e. Facility access roads and surrounding streets from major thoroughfares or freeways to the landfill entrance.
   f. Adjacent city and county limits.
   g. Buffer area (if required for the facility).

h. Land use designation of parcels adjacent and contiguous to the facility property boundary.

i. Scale of the facility map.

j. The map may be a 7.5 or 15 minute United States Geological Survey (USGS) quadrangle as required by PRC Section 18755.5.

k. Date the facility map was prepared.

l. Facility map information can be provided in any of the following formats in the following order of preference: Geographic Information System (GIS) files (e.g., shape files, coverages, themes); Computer Aided Design and Drafting (CADD) files (e.g., dxf, dgn, dwg); and Aerial photos (e.g., tif, jpg, ecw).

m. The plan/map 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.

2. Landfill Facilities

Additionally, also provide the following information (as applicable) for landfill facilities:

a. A ground aerial survey submitted as a CADD or vector graphics data file including at least two strata, i.e., (1) a stratum showing the base and finished ground surfaces, and (2) a stratum showing the existing and finished ground surfaces.

b. Initial and final grades, and delineate the extent of the fill area.

c. Limits of the existing permitted disposal area.

d. Limits of the active disposal areas.

e. Limits of inactive disposal areas.

f. Limits of the permitted expansion areas (not yet constructed or active).

g. Limits of the proposed future expansion areas.

h. Limits of the closed disposal areas.

i. Limits of areas that have undergone full and approved post-closure.

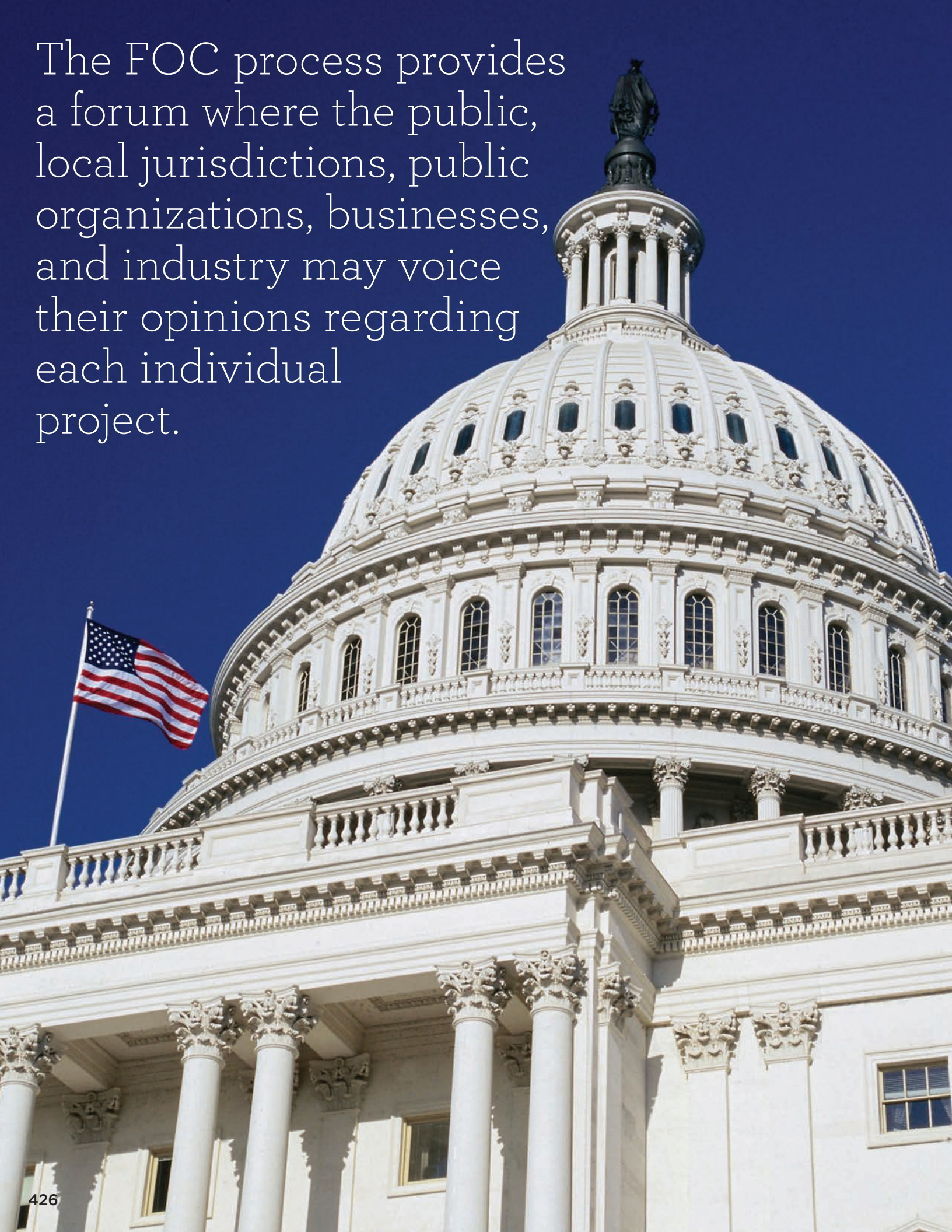
3. Other Facilities

Additionally, also provide the following information (as applicable) for other facilities:

a. Architectural, mechanical, and structural plans of facility buildings and structures, including, but not limited to, equipment, machinery, treatment facilities, etc.

b. Solid Waste Management Technology Procedural Flowchart.

c. Schematic Process Diagram for the Solid Waste Management Facility.


The FOC process provides a forum where the public, local jurisdictions, public organizations, businesses, and industry may voice their opinions regarding each individual project.

G

Glossary of Terms

GLOSSARY OF TERMS

Abandoned Site

Defined in California Code of Regulations (CCR), Title 27, Section 20164 as "a site where there is no responsible party."

Action Plan

Refers to the Los Angeles County Solid Waste Management Action Plan, adopted by the Los Angeles County Board of Supervisors on April 5, 1988, the County Sanitation Districts of Los Angeles County in May 1988, and the City of Los Angeles Board of Public Works. It provided policies and strategies for the integrated management of solid waste in the County, prior to approval of the Los Angeles County Countywide Integrated Waste Management Plan.

Active

Defined in CCR, Title 27, Section 20164 as "the period when waste is being accepted for disposal at a disposal site."

Active Face

Defined in CCR, Title 27, Section 20164 as "the working surface of a landfill upon which solid wastes are deposited during landfill operation, prior to the placement of cover material."

Adjustment Method

Refers to a formula for annually estimating solid waste tons generated by jurisdictions. Chapter 1292, Statutes of 1992 (Sher, AB 2494) required the California Department of Resources Recycling and Recovery (CalRecycle) to develop a standard methodology so that jurisdictions would have a cost-effective way to estimate how much waste they generate. (See Public Resources Code (PRC) Section 41780.1.) CCR, Title 14, Chapter 9, Article 9.1, requires that population, employment, taxable sales, and Consumer Price Index be used in the adjustment method formula.

Aerobic Decomposition

Defined in CCR, Title 14, Section 17852 as "the biological decomposition of organic substances in the presence of oxygen."

Air Pollutant

Refers to material in the ambient air that produces air pollution. Common air pollutants are ozone (O3), nitrogen dioxide (NO2), particulate matter (PM10), sulfur dioxide (SO2), and carbon monoxide (CO). Air pollutant is defined in California Health and Safety Code (HSC), Section 39013 as "any discharge, release, or other propagation into the atmosphere and includes, but is not limited to, smoke, charred paper, dust, soot, grime, carbon, fumes, gases, odors, particulate matter, acids, or any combination thereof." Air pollutant is synonymous with air contaminant.

Air Pollution Control District (APCD)

Refers to a county agency with authority to regulate stationary, indirect, and area sources of air pollution (e.g., power plants, highway construction, and housing developments) within a given county, and governed by a district air pollution control board composed of the elected county supervisors and city representatives (some APCD boards also comprise public representatives as board members).

Air Quality Management District (AQMD)

Refers to a group or portions of counties, or an individual county specified in law with authority to regulate stationary, indirect, and area sources of air pollution within the region and governed by a regional air pollution control board comprised mostly of elected officials from within the region.

Air Quality Management Plan (AQMP)

Refers to a plan prepared by an Air Pollution Control District (APCD)/Air Quality Management District (AQMD), for a county or region designated as a nonattainment area, for the purpose of bringing the area into compliance with the requirements of the national and/or California Ambient Air Quality Standards. AQMPs are incorporated into the State Implementation Plan (SIP).

Air Resources Board (ARB)

Refers to the State's lead air quality agency, consisting of a nine-member Governor-appointed board. It is responsible for attainment and maintenance of the State and federal air quality standards, and is fully responsible for motor vehicle pollution control. It oversees county and regional air pollution management programs.

Airspace

Refers to the vertical and horizontal space extending from surface level upward in elevation over a particular area of land.

Airspace Utilization Factor (AUF)

Defined in CCR, Title 14, Section 18801 as "the effective density of waste material in the landfill. The AUF is recorded as the total weight of waste material passing over the landfill scales that is placed in a known volume of landfill airspace in a given period of time. The waste portion of the AUF should include only waste material for which payment of fees to [CalRecycle] is reported."

Alternative Fuels

Refer to cleaner burning fuels such as methanol, ethanol, hydrogen, natural gas, and liquid propane gas that help to meet the Air Resources Board's (ARB) mobile and stationary emission standards.

Alternative Daily Cover

Refers to a suitable material other than soil (approved by the Local Enforcement Agency (LEA) and concurred with by CalRecycle) that is spread and compacted on the entire surface of the active face of the solid waste landfill at least at the end of each operating day in order to control odor, vectors, fire, water infiltration, erosion, and to prevent unsightliness. (See CCR, Title 27 Section 20690) Defined in CCR, Title 14, Section 20164 as the "cover material other than at least six inches of earthen material, placed on the surface of the active face at the end of each operating day to control vectors, fires, odors, blowing litter, and scavenging."

Alternative Technology

Refers to a technology, such as conversion technology, transformation, engineered municipal solid waste (EMSW) conversion, or other emerging technologies, capable of processing solid waste, in lieu of landfill disposal.

Ambient Air

Refers to the air occurring at a particular time and place outside of structures. Often used interchangeably with "outdoor" air.

Ambient Air Quality Standards (AAQS)

Refer to the health and welfare based standards for clean outdoor air that identify the maximum acceptable average concentrations of air pollutants during a specified period of time.

Anaerobic Decomposition

Defined in CCR, Title 14, Section 17852 as the biological decomposition process occurring in the absence of oxygen.

Anaerobic Digestion

Refers to the biological decomposition of organic matter with little or no oxygen.

Applicant

Refers to a person or entity who proposes to carry out a project that needs a lease, permit, license, certification, or other entitlement for use or financial assistance from one or more public agencies when that person or entity applies for government approval or assistance.

Approval

Refers to the decision of a public agency that commits the agency to a definite course of action in regard to a project intended to be carried out by any applicant. The exact date of approval of any project is a matter determined by each public agency according to its rules, regulations, and ordinances. Legislative action in regard to a project often constitutes approval.

Asbestos

Defined in CCR, Title 14, Section 18720 as "fibrous forms of various hydrated minerals, including chrysotile (fibrous serpentine), crocidolite (fibrous riebecktite), amosite (fibrous cummingtonite-grunerite), fibrous tremolite, fibrous actinolite, and fibrous anthophyllite."

Ash

Defined in CCR, Title 14, Section 17225.5 as "the residue from the combustion of any solid or liquid materials."

Assembly Bill 939 (AB 939)

Refers to the California Integrated Waste Management Act of 1989 (AB 939). AB 939 repealed the California Solid Waste Management Resource Recovery Act of 1972 and the California Solid Waste Control Act of 1976 in their entirety and comprehensively reorganized the State solid waste management planning process. AB 939 creates a four-part structure. First, it creates the California Integrated Waste Management Board, a six-member board, replacing the nine-member board. Second, it replaces the old scheme of with a new, integrated waste management planning process, including recycling goals for cities and counties. Third, it strengthens the certification and performance standards for local enforcement agencies. Fourth, it reorganizes and consolidates several existing laws, with minor modifications, into the PRC. The recited purposes of AB 939 are to reduce, recycle, and reuse solid waste generated in the State; conserve natural resources; and protect air and water quality. AB 939 is also intended to improve the regulation of existing solid waste landfills, ensure that new solid waste landfills are environmentally sound, improve permitting procedures for solid waste management facilities, and specify the responsibilities of local governments to develop and implement integrated waste management programs.

Attainment Area

Refers to a geographic area which is in compliance with the National and/or California Ambient Air Quality Standards (NAAQS or CAAQS).

Attainment Plan

Refers to a plan that details the emission-reducing control measures and their implementation schedule necessary to attain air quality standards. In particular, the federal Clean Air Act requires attainment plans for non-attainment areas; these plans must meet several requirements, including requirements related to enforceability and adoption deadlines.

Authority to Construct

Refers to a permit required by the local air quality regulatory agency (SCAQMD) prior to the constructions of a major emission source.

Available Out-of-County Disposal Capacity

Refers to the amount of solid waste generated in Los Angeles County that can be accepted by the out-of-County Class III landfills in California potentially available for out-of-County disposal of solid waste from Los Angeles County.

Average

Refers to a term of measurement where the sum of the measurements (included over a specified period) divided by the number of measurements.

Average Daily Traffic

Refers to the number of vehicles passing a given point on a road going in one direction during a 24-hour period.

Balefill

Refers to a landfill that uses compacted bales of solid waste to form discrete lifts as the landfill is filled.

Baling

Defined in CCR, Title 14, Section 17225.6 as "the process of compressing and binding solid wastes."

Ban

Refers to a term used to describe an act, normally by legislation or regulation, which forbids certain materials from being received and processed by a solid waste management facility.

Base-Year Generation

Refers to the amount of waste generated by a jurisdiction during the calendar year used for a jurisdiction's solid waste generation study. The waste generated by a jurisdiction includes all solid waste disposed or diverted. Base-year generation is the base for CalRecycle's projections and estimates of a jurisdiction's future waste generation and diversion rates for the subsequent years.

Baseline

Refers to a set of existing conditions against which change is to be described and measured.

Basin Plan

Refers to the SWRCB's master policy document that contains descriptions of the legal, technical, and programmatic bases of water quality regulation in the Region. The plan must include: a statement of beneficial water uses that the Water Board will protect; the water quality objectives needed to protect the designated beneficial water uses; and the strategies and time schedules for achieving the water quality objectives

Beneficial Use Materials

Refers to: (1) solid waste that has been source-separated or otherwise processed and put to a beneficial use at a facility, or separated or otherwise diverted from the waste stream and exported from the facility, for purposes of recycling or reuse, and shall include, but not be limited to, green waste, wood waste, asphalt, concrete, or dirt; (2) clean dirt imported to cover and prepare interim and final fill slopes for planting and for berms; or (3) all Alternative Daily Cover materials types.

Best Available Control Technology (BACT)

Refers to a pollution control standard mandated by the Federal Clean Air Act (CAA); and to the most up-to-date methods, systems, techniques, and production processes available to achieve the greatest feasible emission reductions for given regulated air pollutants and processes. BACT is a requirement of New Source Review (NSR) and Prevention of Significant Deterioration (PSD) permit actions. From a federal perspective, BACT as used for PSD purposes means an emission limitation based on the maximum degree of emissions reductions allowable, taking into account energy, environmental, and economic impacts and other costs (CAA Section 169(3).) From a state law perspective, BACT means an emission limitation that will achieve the lowest achievable emission rates. The lowest achievable emission rates mean the most stringent of either: (1) the most stringent emission limits contained in the State Implementation Plan (SIP) for the class or category of source (unless it is demonstrated that one limitation is not achievable); or (2) the most stringent emission limit achieved in practice by that class in category of source. BACT is more stringent under state law than it is under federal law. BACT under state law is equivalent to federal Lower Achievable Emission Rate (LAER), which applies to NSR permit actions.

Best Management Practice(s)

Defined in CCR, Title 27, Section 20164 as "a practice, or combination of practices, that is the most effective and feasible means of controlling pollution generated by nonpoint sources for the attainment of water quality objectives."

Bin

Refers to a container that temporarily stores waste until it is collected.

Biomass

Defined in HSC, Section 25143.5 (g)(2) 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 either high-level or low-level radioactive waste."

Biomass Combustion

Refers to "Biomass Conversion."

Biomass Combustion Process

Defined in HSC Section 25143.5(g)(1) as "a combustion process that has a primary energy source of biomass or biomass waste, and of which 75 percent of the total energy input is from those sources during any calendar year, and of which 25 percent or less of the other energy sources do not include sewage sludge, industrial sludge, medical waste, hazardous waste, radioactive waste, or [MSW]."

Biomass Conversion

Defined in California Public Resources Code (PRC), Section 40106 as:
The production of heat, fuels, or electricity by the controlled combustion of, or the use of other noncombustion thermal conversion technologies on, the following materials, when separated from other solid waste: (1) agricultural crop residues; (2) bark, lawn, yard, and garden clippings; (3) leaves, silvicultural residue, and tree and brush pruning; (4) wood, wood chips, and wood waste; (5) non-recyclable pulp or non-recyclable paper materials. Biomass conversion" does not include the controlled combustion of recyclable pulp or recyclable paper materials, or materials that contain sewage sludge, industrial sludge, medical waste, hazardous waste, or either high-level or low-level radioactive waste.
For purposes of this section, "nonrecyclable pulp or nonrecyclable paper materials" means either of the following, as determined by the department:
Paper products or fibrous materials that cannot be technically, feasibly, or legally recycled because of the manner in which the product or material has been manufactured, treated, coated, or constructed.
Paper products or fibrous materials that have become soiled or contaminated and as a result cannot be technically, feasibly, or legally recycled.

British Thermal Unit (BTU)

Refers to the acronym for British thermal unit (BTU), which is a measurement of energy and the amount of energy that can be obtained as heat by combusting approximately 1/1000 cubic foot of natural gas.

Bulky Waste (Bulky Items)

Refers to large items of solid waste, other than white goods, which because of their bulk/size require special collection and management. Examples include tree stumps, furniture, large auto parts, hot water heaters, furnaces, and perhaps remodeling materials from residential sources.

California Ambient Air Quality Standards (CAAQS)

Refers to the standards set by the State of California for the maximum levels of air pollutants which can exist in the outdoor air without unacceptable effects on human health or the public welfare. These are more stringent than National Ambient Air Quality Standards (NAAQS).

California Clean Air Act (CCAA)

Refers to a California law passed in 1988 which provides the basis for air quality planning and regulation independent of federal regulations. A major element of the CCAA is the requirement that local APCDs/AQMDs in violation of state ambient air quality standards must prepare attainment plans which identify air quality problems, causes, trends, and actions to be taken to attain and maintain California's air quality standards by the earliest practicable date.

CalRecycle

Defined in CCR, Title 27, Section 20164 as "the Department of Resources Recycling and Recovery (formerly the California Integrated Waste Management Board [CIWMB]), which is the lead agency for implementing the State municipal solid waste permit program that is deemed to be adequate by United States Environmental Protection Agency (USEPA) under regulations published pursuant to sections 2002 and 4005 of [Federal Resource Conservation and Recovery Act] (RCRA)." On January 1, 2010, Senate Bill No. 63 created CalRecycle by transferring the duties and responsibilities of CIWMB and Division of Recycling to CalRecycle and combining California's recycling and waste diversion efforts within CalRecycle. CalRecycle is the department within the California Natural Resources Agency that administers programs formerly managed by CIWMB and Division of Recycling.

California Environmental Quality Act (CEQA)

Refers to California's broadest environmental law enacted by the State legislature in 1970 and amended thereafter. CEQA sets forth a process for public agencies to make informed decisions on discretionary project approval. The process aids decision makers in determining whether any environmental impacts are associated with a proposed project. CEQA requires environmental impacts associated with a proposed project to be identified, disclosed, and avoided or mitigated to the maximum extent feasible. CEQA's five key objectives are to: (1) disclose to decision-makers and the public the significant environmental impacts of proposed activities; (2) identify ways to prevent or reduce environmental damage by requiring consideration of feasible alternatives or mitigation measures; (3) disclose to the public reasons for agency approvals of projects with significant environmental impacts; (4) promote interagency coordination; and (5) provide opportunities for and encourage public participation throughout the process.

California Integrated Waste Management Board (CIWMB)

Defined in CCR, Title 27, Section 20164 as "the California Integrated Waste Management Board [CIWMB], which, as of January 1, 2010, ceased to exist as an agency and became part of (subjoined into) [CalRecycle]. CalRecycle is the lead agency for implementing the State municipal solid waste permit program that is deemed to be adequate by USEPA under regulations published pursuant to sections 2002 and 4005 of RCRA."
See "CalRecycle."

Capital Costs

Defined in CCR, Title 14, Section 18720 as "those direct costs incurred in order to acquire real property assets such as land, building and building additions; site improvements; machinery; and equipment."

Carbon Monoxide (CO)

Refers to a colorless, odorless gas resulting from the incomplete combustion of fossil fuels. Motor vehicles contribute over 80% of the CO emitted in urban areas. CO interferes with the blood's ability to carry oxygen to the body's tissues and results in numerous adverse health effects. CO is a criteria air pollutant.

Cell

Defined in CCR, Title 27, Section 20164 as "that portion of compacted solid wastes in a landfill that is enclosed by natural soil or cover material during a designated period."

City

Refers to an incorporated area in Los Angeles County.

Class III Landfill

Refers to a land disposal site. Class III landfills are only permitted to accept nonhazardous solid waste materials where site characteristics and containment structures isolate the solid waste from the waters of the State. The land disposal site must meet the requirements of the Federal Resource Conservation and Recovery Act (RCRA), Subtitle D; CCR, Title 14, Sections 17000 et seq.; and other regional and local rules and regulations.

Class III Landfill Disposal Demand

Refers to the difference between the total disposal need (excluding inert waste landfills) and the available disposal capacity of the transformation facilities and alternative technology facilities.

Clean Air Act (CAA)

Refers to a federal law passed in 1970 and amended in 1977 and 1990, which forms the basis for the national air pollution control effort. Basic elements of the act include national ambient air quality standards for major air pollutants, air toxics standards, acid rain control measures, and enforcement provisions.

Closed, Abandoned, and Inactive (CAI) Units

Defined in CCR, Title 27, Section 20164 as "waste management units that were closed, abandoned, or inactive prior to November 27, 1984."

Closed Site

Defined in CCR, Title 27, Section 20164 as "a disposal site that has ceased accepting waste and was closed in accordance with applicable statutes, regulations, and local ordinances in effect at the time."

Closure

Defined in CCR, Title 27, Section 20164 as "the process during which a waste management unit (Unit), or portion thereof, that is no longer receiving waste, is undergoing all operations necessary to prepare the Unit (or portion thereof, as appropriate) for post-closure maintenance in accordance with an approved plan for closure, or partial final closure as appropriate."

Collection

Defined in CCR, Title 27, Section 20164 as "the act of collecting solid waste at the place of waste generation by an approved collection agent (public or private) and is distinguished from 'removal.'"

Combustion

Refers to a rapid conversion of chemical energy into thermal energy. The reaction is exothermic. Organic matter is oxidized with sufficient air (or oxygen) for reactions to go to completion. The carbon and hydrogen are oxidized to carbon dioxide and water, respectively. (See http://www.calrecycle.ca.gov/Organics/Glossary/Conversion.htm.)

Commercial Solid Waste

Refers to solid waste generated by businesses, institutions, general health care wastes from health care facilities and health care providers, and solid waste, from industries that are similar in characteristics to that generated by businesses.

Compaction Rate

Refers to the density in pounds per cubic yard of solid waste (excluding cover materials used) deposited in a landfill after it has been compacted. Throughout the Countywide Siting Element (CSE), the compaction rate listed has been provided by the landfill operator. When a site-specific density is not available, an in-place solid waste density/compaction rate of 1,200 pounds per cubic yard is assumed for Class III landfills, 3,000 pounds per cubic yard for inert waste landfills, and 900 pounds per cubic yard for materials recovery facilities and transfer stations.

Composite Liner

Refers to a liner consisting of two layers of materials (usually clay and a synthetic material), designed to protect groundwaters by acting as a barrier to leachate and gas migration.

Compost

Defined in PRC, Section 40116 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."

Compostable Organic Material

Means any organic material that when accumulated, aerated, and brought to the optimal moisture level for rapid decomposition of the material, will become active compost as defined in Title 14, Section 17852 (a)(1).

Composting

Defined in PRC, Section 40116.1 as "the controlled or uncontrolled biological decomposition of organic wastes." Further defined in CCR, Title 14, Section 17225.14 as "a controlled microbial degradation of organic wastes yielding a safe and nuisance free product."

Composting Facility

Defined in CCR, Title 14, Section 18720 as "the permitted solid waste facility at which composting is conducted and which produces a product meeting the above definition of 'compost' in [PRC] section 40116."

Construction and Demolition (C & D)

Defined in CCR, Title 14, Section 17388 as "construction and demolition, as in the term 'C & D waste.'"

Construction and Demolition Wastes

Defined in CCR, Title 14, Section 17388 as "the waste building materials, packaging and rubble resulting from construction, remodeling, repair and demolition operations on pavements, houses, commercial buildings and other structures."

Construction, Demolition, and Inert (CDI) Debris Processing Facility

Refers to a site that receives any combination of construction and demolition debris, and Type A inert debris per operating day for the purposes of storage, handling, transferring, or processing. Type A inert debris includes, but is not limited to, concrete (including fiberglass or steel reinforcing bar embedded in the concrete), fully cured asphalt, crushed glass, fiberglass, asphalt or fiberglass roofing shingles, brick, slag, ceramics, plaster, and clay products. The facilities listed in the CSE under the CDI category are only those construction and demolition (C&D) debris recycling facilities in Los Angeles County classified as CDI facilities in the Solid Waste Information System (SWIS) database. For a complete list of the C&D recycling facilities in Los Angeles County, see the Los Angeles County Construction and Demolition Debris Recycling and Reuse Program website at: http://dpw.lacounty.gov/epd/CD/cd_attachments/Recycling_Facilities.pdf.

Construction, Demolition, and Inert Waste (CDI)

Defined in CCR, Title 14, Section 17388 as "any combination of construction and demolition waste and inert debris."

Construction, Demolition, and Inert Waste (CDI) Waste Disposal Facility

Defined in CCR, Title 14, Section 17388 as "a facility at which C&D waste, C&D waste together with inert debris (Type A or B) or inert debris (Type B) only is disposed."

Construction and Demolition Waste and Inert Debris Disposal Regulatory Tiers

Defined in CCR, Title 14, Section 17388.1 as follows: (a) Full Solid Waste Facility Permit Tier, which refers to CDI Waste Disposal Facilities pursuant to CCR, Title 14, Section 17388.5; (b) Registration Permit Tier, which refers to Inert Debris Type A Disposal Facilities pursuant to CCR, Title 14, Section 17388.4; (c) Enforcement Agency (EA) Notification Tier, which refers to inert debris engineered fill operations pursuant to CCR, Title 14, Section 17388.3; and (d) Excluded Operations tier, which refers to Inert Debris Engineered Fill Activities which conclude within one year and accept landslide debris, sediment accumulated within irrigation or flood control facilities, road building and road repair debris, and facilities considered as clean closed CDI waste disposal facilities pursuant to CCR Title 14, Section 17388.2.

Containment

Defined in CCR, Title 27 Section 20164, as "the use of waste management unit characteristics or installed systems and structures to prevent or restrict the release of waste constituents, including waste constituents mobilized as a component of leachate or of landfill gas."

Conversion Technologies

Refers to a wide array of technologies capable of converting post-recycled or residual solid waste into useful products, green fuels, and renewable energy through non-combustion thermal, chemical, or biological processes. Conversion technologies may include mechanical processes when combined with a non-combustion thermal, chemical, or biological conversion process.

County

Refers to the County of Los Angeles including the Board of Supervisors as the legislative and executive body of county government, and any designated agency responsible for solid waste management. For purposes of CCR, Title 14, Article 6.5, "'county' shall include the Board of Supervisors as the legislative and executive body of county government, and any designated agency responsible for solid waste management."

County Solid Waste Management Plan

Refers to 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. Los Angeles County solid waste planning activities were previously governed by the Los Angeles County Solid Waste Management Plan (CoSWMP) (March 1984); and Revision A (August 1985) that received approval by (1) the majority of the Cities in Los Angeles County containing a majority of the incorporated population, and (2) the County Board of Supervisors. The CoSWMP was approved by the former California Waste Management Board in March 1986. As required by AB 939, the CoSWMP was superseded by the Los Angeles County Countywide Integrated Waste Management Plan (CoIWMP) after approval by the cities in Los Angeles County, the County Board of Supervisors, and CIWMB in 1999.

Countywide

Defined in CCR, Title 14, Section 18755 (f) as "the incorporated cities within the county and the unincorporated areas of the county."

Countywide Integrated Waste Management Plan (CoIWMP)

Refers to 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' Source Reduction and Recycling Elements (SRREs), Household Hazardous Waste Elements (HHWEs), Nondisposal Facility Elements (NDFEs), the CSE, and the Summary Plan.

Countywide Siting Element (CSE)

Refers to a planning document required by the California Integrated Waste Management Act of 1989 (AB 939), as amended (Section 40000 et seq. of the PRC) which provides a description of the areas to be used for development of adequate transformation or disposal capacity concurrent and consistent with the development and implementation of the county and city source reduction and recycling elements pursuant to Section 41700 of the PRC.

Cover Material

Defined in CCR, Title 27, Section 20164 as the "soils/earthen materials or alternative materials used in covering compacted solid wastes in a disposal site. Cover material may serve as daily, intermediate or final cover. 'Alternative Daily Cover' means cover material other than at least six inches of earthen material, placed on the surface of the active face at the end of each operating day to control vectors, fires, odors, blowing litter, and scavenging. 'Daily Cover Material' includes that cover material placed on the entire surface of the active face at least at the end of each operating day in order to control vectors, fire, odors, blowing litter and scavenging. 'Final Cover Material' means cover material that represents the permanently exposed final surface of a fill. 'Intermediate Cover Material' means cover material placed on all fill surfaces where additional cells are not to be constructed for 180 days or more to control vectors, fires, odors, blowing litter, scavenging, and drainage. Intermediate cover does not include final cover as defined in this section."

Criteria Air Pollutant or Criteria Pollutant

Refers to one of six common air pollutants determined to be hazardous to human health and regulated under the United States Environmental Protection Agency (USEPA) National Ambient Air Quality Standards (NAAQS). The six criteria air pollutants are carbon monoxide, lead, nitrogen dioxide, ozone, sulfur dioxide, and particulate matter. They are called "criteria pollutants" because the CCA required USEPA to describe the criteria for setting or revising standards. The term "criteria pollutants" derives from the requirement that USEPA must describe the characteristics and potential health and welfare effects of these pollutants. It is on the basis of these criteria that standards are set or revised.

Cumulative Impacts

Refer to two or more individual impacts on the environment that, when considered together, are considerable or that compound or increase other environmental impacts.

Curbside Collection

Refers to the collection of solid waste, recyclables, or other materials placed in front of the property (curbside) by the generator who then returns the containers to their normal location after they have been emptied. (See 40 CFR 243 et seq.) Curbside collection is generally used in the collection of residential solid wastes and recyclables, or other materials. It is not normally used in commercial, institutional, or industrial solid waste collection.

Daily Disposal Capacity Reserve

Refers to the daily amount of solid waste capacity available in-County and out-of-County in excess of the daily amount of solid waste in need of disposal.

Daily Disposal Capacity Shortfall

Refers to the daily amount of solid waste in need of disposal in excess of available in-County and out-of-County disposal capacity.

Daily Disposal Demand

Refers to the amount of solid waste generated less the amount diverted by means of reuse, recycling, or composting based on a six-day-per-week operation at permitted solid waste disposal facilities.

Daily Permitted Capacity

Refers to 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 (SWFP), Land/ Conditional Use Permit, Waste Discharge Requirements permit, or the Permit to Operate, whichever is less.

Day

Defined in CCR, Title 27, Section 20164 as the "calendar day unless otherwise specified."

Decision-Making Body

Refers to any person or group of people within a public agency permitted by law to approve or disapprove the project at issue.

Decomposable Waste

Defined in CCR, Title 27, Section 20164 as "waste which, under suitable natural conditions, can be transformed through biological and chemical processes into compounds which do not impair the quality of waters of the state. Nevertheless, incomplete decomposition may result in some water quality degradation (e.g., hardness, taste, odor, etc.)."

Decomposition Process

Refers to the chemical and/or microbiological breakdown or degradation of organic substances in solid waste into constituent parts or elements.

Direct Haul

Refers to the hauling of collected solid waste in the collection vehicle from its point of collection to a solid waste management facility (materials recovery, mulching, composting, transformation, or landfill facilities).

Direct Transfer Facility

Refers to a transfer facility that receives each operating day an amount of solid waste equal to, or more than, 60 cubic yards or 15 tons (whichever is greater) but less than 150 tons, and the facility meets the standards specified in CCR, Title 14, Section 17402(3).

Discretionary Action

Refers to an action that requires the exercise of judgment or deliberation when a public agency or body decides to approve or disapprove a particular activity.

Disposal

Defined in PRC, Section 40192 as: "(a) Except as provided in subdivisions (b) and (c),'solid waste disposal,' 'disposal,' or 'dispose' means the final deposition of solid waste onto land, into the atmosphere, or into the waters of the state. (b) For the purposes of Part 2 (commencing with Section 40900), 'solid waste disposal,' 'dispose,' or 'disposal' means the management of solid waste through landfill disposal, transformation, or engineered municipal solid waste (EMSW) conversion, at a permitted solid waste facility, unless the term is expressly defined otherwise. (c) For the purposes of Chapter 16 (commencing with Section 42800) and Chapter 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 47901) of Part 7, 'solid waste disposal,' 'dispose,' or 'disposal' means the final deposition of solid wastes onto the land. Also defined in CCR, Title 14, Section 18720 (17) as "the management of solid waste through landfilling or transformation at permitted solid waste facility."

Disposal Area

Defined in CCR, Title 27, Section 20164 as "that portion of a disposal site which has received or is receiving solid wastes."

Disposal Area Acreage

Refers to the location, tract of land, area, or premises in use, intended to be used, or which has been used, for the disposal of solid wastes, as applicable to land disposal sites.

Disposal Capacity

Defined in CCR, Title 14, Section 18720 (18) 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."

Disposal Capacity Need

See "Disposal Capacity Shortfall" Or "Daily Disposal Capacity Shortfall".

Disposal Capacity Shortfall

Refers to the daily amount of solid waste in need of disposal in excess of the available in-County and out-of-County disposal capacity.

Disposal Facility

Defined in PRC, Section 40121 as "a facility or location where disposal of solid waste occurs or an EMSW conversion facility."

Disposal Site

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

Disposal Site Owner

Refers to a person who holds title to a disposal site property.

District(s)

See "Garbage Disposal Districts" (GDDs).

Diversion

Refers to the act of diverting one or more designated materials from a solid waste stream. Diversion typically occurs at the point of generation. Normally, diversion is used to divert recyclables for separate collection, but it may also be used to prevent certain materials from being managed with the rest of a solid waste stream. Defined in PRC, Section 40124 as "activities which reduce or eliminate the amount of solid waste from solid waste disposal for purposes of [PRC, Division 30],including Article I (commencing Section 41780) of Chapter 6 [of PRC]."

Diversion Rate

Refers to the amount of material being diverted for recycling, compared to the total amount that was previously generated prior to diversion.

Dump

Defined in CCR, Title 27, Section 20164 as "a disposal site which has waste exposed to the elements, vectors and scavengers."

Dumpster

Refers to a common term used to describe storage bins (containers) for commercial, institutional, industrial, residential, and multi-residential solid waste.

Earthquake

Refers to a sudden movement of the earth's crust, caused by the release of stress accumulated along geologic faults or by volcanic activity.

Earthquake Magnitude

Defined in CCR, Title 27, Section 20164 as "the Richter scale of earthquake magnitude used to express the total energy of an earthquake."

Emission Offset (also known as an Emission Trade-off)

Refers to a rule-making concept whereby approval of a new or modified stationary source of air pollution is conditioned on the reduction of emissions from other existing stationary sources of air pollution. These reductions are required in addition to reductions required by BACT.

Emission Standard

Refers to the maximum amount of a pollutant that is allowed to be discharged from a polluting source such as an automobile or smoke stack.

Endothermic

Refers to a process or reaction that absorbs energy in the form of heat.

Energy Recovery

Refers to a form of resource recovery in which the organic fraction of waste is converted via combustion, pyrolysis, anaerobic digestion, or

other process to produce some form of usable energy.

Enforcement Agency (EA)

See "Local Enforcement Agency."

Engineered Fill Activity

Defined in CCR, Title 14, Section 17388 as "fill that has been designed by an engineer to act as a structural element of a constructed work and has been placed under engineering inspection, usually with density testing. An engineered fill activity shall meet specifications prepared and certified for a specific project by a Civil Engineer, Certified Engineering Geologist, or similar professional licensed by the State of California, and includes requirements for placement, geometry, material, compaction and quality control."

Engineered Municipal Solid Waste Conversion or EMSW Conversion

Defined in PRC, Section 40131.2 (a) as "the conversion of solid waste through a process that meets all of the following requirements: (1) The waste to be converted is beneficial and effective in that it replaces or supplements the use of fossil fuels. (2) The waste to be converted, the resulting ash, and any other products of conversion do not meet the criteria or guidelines for the identification of a hazardous waste adopted by the Department of Toxic Substances Control pursuant to Section 25141 of the Health and Safety Code. (3) The conversion is efficient and maximizes the net calorific value and burn rate of the waste. (4) The waste to be converted contains less than 25 percent moisture and less than 25 percent noncombustible waste. (5) The waste received at the facility for conversion is handled in compliance with the requirements for the handling of solid waste imposed pursuant to this division, and no more than a seven-day supply of that waste, based on the throughput capacity of the operation or facility, is stored at the facility at any one time. (6) No more than 500 tons per day of waste is converted at the facility where the operation takes place. (7) The waste has an energy content equal to, or greater than, 5,000 BTU per pound." and "(8) The waste to be converted is mechanically processed at a transfer or processing station to reduce the fraction of chlorinated plastics and materials."

Engineered Municipal Solid Waste Conversion Facility or EMSW Conversion Facility

Defined in PRC, Section 40131.2 (b) as "a facility where municipal solid waste conversion that meets the requirements of PRC, Section 40131.2, (a) takes place" (see definition for engineered municipal solid waste conversion or EMSW conversion).

Environmental Control System

Defined in CCR, Title 27, Section 20164 as "a system to prevent the release of waste constituents from the containment structures of sites. Environmental control system for the purpose of this definition does not include systems which primary function is to protect water quality."

Environmental Justice

Defined in California Government Code Section 65040.12(e) as "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies."

Environmental Protection Agency (EPA)

Refers to the United States agency charged with setting policy and guidelines, and carrying out legal mandates for the protection of national interests in environmental resources.

Et Seq.

Refers to an abbreviation for the Latin term "et sequentes," which means "and the following one or ones." The term "et seq." is used in references made to particular pages or sections of cases, articles, regulations, or statutes to indicate that the desired information is continued on the pages or in the sections following a designated page or section.

Existing

Refers to a facility fully permitted, i.e., has Land Use Permit/Conditional Use Permit, Waste Discharge Requirements, SWFP, and Air Quality Permit, if applicable.

Existing Footprint

Defined in CCR, Title 27, Section 20164 as "the area of land, at an MSW landfill, that is covered by waste as of the date that landfill became subject to the federal regulations of 40 CFR Part 258, pursuant to section 258.1 of that part, as published in the Federal Register of October 1, 1993 (Volume 58, No. 189, pages 51546 and 51547)."

Exothermic

Refers to a process or reaction that releases energy usually in the form of heat, but also in the form of light (e.g., a spark, flame, or explosion), electricity (e.g., a battery), or sound.

Expansion

Refers to a solid waste facility which has: (1) an increase in the physical dimension of the facility; (2) an increase in the permitted daily disposal rate, throughput, or intake/processing capacity; (3) an extension or renewal of a permit whose expiration date may affect the operation of the facility, whichever is applicable; and/or (4) any permitted activity that results in an increase in permitted disposal capacity. For a landfill, 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 (at any depth) in which solid waste may be disposed to areas contiguous or adjacent to the area of the existing operation.

Expansion of a Solid Waste Disposal Facility

See "Expansion."

Export Agreement

Refers to a negotiated agreement between a jurisdiction or its waste hauler and a solid waste disposal facility owner/operator for a solid waste disposal facility located outside that jurisdiction.

Extended Producer Responsibility (EPR)

Refers to a mandatory form of product stewardship that includes, at a minimum, the requirement that the producer's responsibility for their product extends to the post-consumer management of that product and its packaging. There are two related features of EPR policy: (1) the shifting of management and financial responsibility upstream to the producer and away from municipalities, and (2) to provide incentives to producers to incorporate environmental considerations in the design of their products.

Facility

See "Disposal Facility."

Facility Boundary

Defined in CCR, Title 27, Section 20164 as "the boundary surrounding the entire area on which solid waste facility activities occur and are permitted."

Fermentation

Refers to a process by which organic compounds are broken down by microorganisms to yield hydrogen, alcohols, and carbon dioxide. Fermentation occurs during times of low oxygen supply; therefore, it is known as a type of anaerobic digestion.

Fill

Defined in CCR, Title 14, Section 17388 as "gravel, rock, soil, sand, uncontaminated concrete, or fully cured asphalt in conjunction with a construction project or grading." Per CCR, Title 27, Section 20164 a fill can consist of "compacted solid waste and cover material."

Flow Controls

Refer to legal provisions that allow state and local governments to designate the places where municipal solid waste (MSW) is taken for processing, treatment, or disposal. Flow controls may take the form of a "wasteshed" restriction, limits on the amount of waste from individual jurisdictions, host fees, and/or outright bans on the importation of solid waste.

Flue

Defined in CCR, Title 14, Section 17225.29 as "any duct or passage for air, gases, or the like, such as a stack or chimney."

Franchise

Refers, in this context, to an exclusive right granted by a governing political body to a public, or more often, a private service provider, to collect and/or manage solid waste for a local government.

Fugitive Dust

Refers to dust particles which are introduced into the air through certain activities such as soil cultivation, off-road vehicles, or any vehicles operating on open fields or dirt roadways.

Garbage

Defined in CCR, Title 27, Section 20164 as "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.)

Garbage Disposal Districts (GDDs)

Refer to areas within the unincorporated County of Los Angeles where garbage collection and disposal services are provided to residents and businesses by private waste haulers who contract with the Los Angeles County Department of Public Works.

Gasification

Defined in PRC, Section 40117 as "a technology that uses a noncombustion thermal process to convert solid waste to a clean burning fuel for the purpose of generating electricity, and that, at minimum, meets all of the following criteria: (a) The technology does not use air or oxygen in the conversion process, except ambient air to maintain temperature control. (b) The technology produces no discharges of air contaminants or emissions, including greenhouse gases, as defined in subdivision (g) of [HSC, Section 38505]. (c) The technology produces no discharges to surface or groundwaters of the state. (d) The technology produces no hazardous waste. (e) To the maximum extent feasible, the technology removes all recyclable materials and marketable green waste compostable materials from the solid waste stream prior to the conversion process and the owner or operator of the facility certifies that those materials will be recycled or composted. (f) The facility where the technology is used is in compliance with all applicable laws, regulations, and ordinances. (g) The facility certifies to the board that any local agency sending solid waste to the facility is in compliance with this division and has reduced, recycled, or composted solid waste to the maximum extent feasible, and the board makes a finding that the local agency has diverted at least 30 percent of all solid waste through source reduction, recycling, and composting."

General Fund

Refers to local government financial management, those funds raised by jurisdiction-wide taxes, e.g., property and sales taxes.

Geosynthetic Membrane

Defined in CCR, Title 27, Section 20164 as "flexible materials in planar form manufactured to meet specific engineering purposes. The term includes, but is not limited to: 'geomembrane,' an essentially impermeable membrane used as a barrier to waste solids and fluids, and synonymous with 'synthetic liner' and 'flexible membrane liner (FML)'; 'geocomposite liner (GCL),' a manufactured material using geotextiles, geogrids, geonets, and/or geomembranes in laminated or composite form; 'geotextile' (including 'geonet'), any permeable textile used with foundation, soil, rock, earth, or any other geotechnical engineering-related material as an integral part of a constructed project, structure, or system."

Goals

Refer to the desired results that planning endeavors are directed toward pursuant to CCR, Title 14, Section 18755.1. The goals of the CSE 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 waste prevention (including source reduction) and product design and producer responsibility, reuse, recycling and composting, conversion technology, and waste-to-energy.

Green Waste

Refers to organic wastes from lawn, tree, horticultural, and landscaping services including leaves, grass clippings, tree prunings, large cut waste timber and stumps, and other materials which are generated by commercial or nonresidential activities, as well as similar materials generated by homeowners from their lawns and gardens.

Ground Water

Defined in CCR, Title 27, Section 20164, "for the purpose of the SWRCB-promulgated requirements of this subtitle, [ground water] means water below the land surface that is at or above atmospheric pressure."

Hauler

Refers to a term universally used in North America to describe any organization (publicly or privately owned and operated) that collects solid waste. Most often used, however, to describe a privately owned organization.

Hazard

Refers to the likelihood that a substance will cause an injury or adverse effect under specified conditions.

Hazardous Waste

Defined in PRC, Section 40141 as: "(a) 'Hazardous waste' means a waste, defined as a 'hazardous waste' in accordance with [HSC,] Section 25117, or a 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."

Host Fees

Refer to fees paid by one jurisdiction to another jurisdiction for the privilege of utilizing their landfills for the disposal of solid waste. The fee is paid by waste haulers on each ton of solid waste disposed.

Household Hazardous Waste (HHW)

Refers to solid waste generated by residential generators that exhibit the characteristics of a hazardous waste as established by United States Environmental Protection Agency (USEPA) hazardous waste regulations (USEPA 1980.) These wastes are exempt from the Resource Conservation and Recovery Act (RCRA) hazardous waste regulatory requirements, but may be included in state regulations.

Household Hazardous Waste Element (HHWE)

Refers to 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. On or before July 1, 1992, each city prepared, adapted, and submitted to the County in which the city is located a Household Hazardous Waste Element which identifies a program for the safe collection, recycling, treatment, and disposal of hazardous wastes, as defined in HSC, Section 25117, which are generated by households in their jurisdiction and which should be separated from the solid waste stream pursuant to PRC, Section 41500.

Household Waste

Defined in CCR, Title 27, Section 20164 as "any solid waste (including garbage, trash, and sanitary waste in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day use recreation areas)."

Hydrocarbon

Refers to any of a large number of compounds containing various combinations of hydrogen and carbon atoms. Hydrocarbon may be emitted into the air as a result of fossil fuel combustion, fuel volatilization, and solvent use, and is a major contributor to smog.

In-Place Solid Waste Density

See "Compaction Rate."

Inactive

Defined in CCR, Title 27, Section 20164 as "a temporary status of a waste management unit (Unit), following the initial receipt of waste, in which the Unit is no longer receiving waste."

Inactive Site

Defined in CCR, Title 27, Section 20164 as "a site that is temporarily idle for a specific period due to known circumstances and not part of the normal operation pattern contained in the solid waste facility permit."

Incineration

Refers to 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. The flue gases are treated through a pollution control system which neutralizes acid gases and removes particulate matter and fly ash before the gases are dispersed into the atmosphere.

Incinerator

Defined in CCR, Title 27, Section 20164 as "any equipment used for the volume reduction or destruction of combustible wastes by burning, from which the exhaust gases pass through a flue."

Incinerator Residue

Defined in CCR, Title 27, Section 20164 as "the solid materials remaining after reduction in an incinerator."

Industrial Solid Waste

Refers to solid waste, which is similar in physical, chemical, and biological characteristics to commercial and residential solid waste; is non-hazardous, non-process related; and would normally be generated by offices, warehouses, cafeterias, and shipping activities in industrial operations. Frequently referred to as "light industrial" solid waste.

Inert Debris

Defined in CCR, Title 14, Section 17388 as "solid waste and recyclable materials that are source separated or separated for reuse and do not contain hazardous waste (as defined in CCR, Title 22, section 66261.3 et. seq.) or soluble pollutants at concentrations in excess of applicable water quality [standards]. Inert debris may not contain any putrescible wastes. Gravel, rock, soil, sand, and similar materials, whether processed or not, that have never been used in connection with any structure, development, grading, or other similar human purpose, or that are uncontaminated, are not inert debris. Such materials may be commingled with inert debris.

Inert Debris (Type A)

Defined in CCR, Title 14, Section 17388 as debris that "includes, but is not limited to, concrete (including fiberglass or steel reinforcing bar embedded in the concrete), fully cured asphalt, crushed glass, fiberglass, asphalt or fiberglass roofing shingles, brick, slag, ceramics, plaster, clay and clay products. Type A inert debris is waste that does not contain soluble pollutants at concentrations in excess of water quality objectives and has not been treated in order to reduce pollutants. [CalRecycle], upon consultation with the State Water Resources Control Board, will determine on a case by case basis whether materials not listed in this subdivision qualify as Type A inert debris. CalRecycle and the State Water Resources Control Board may consider statewide and site-specific factors in making this determination."

Inert Debris (Type B)

Defined in CCR, Title 14, Section 17388 as "solid waste that is specifically determined to be inert by the applicable RWQCB [Regional Water Quality Control Board], such as treated industrial wastes and de-watered bentonite-based drilling mud, but excluding Type A inert debris."

Inert Debris Engineered Fill Operations (IDEFO)

Refers to a disposal activity exceeding one year in duration in which only the following inert debris may be used: fully cured asphalt, uncontaminated concrete (including steel reinforcing rods embedded in the concrete), crushed glass, brick, ceramics, clay, and clay products, which may be mixed with rock and soil. These materials are spread on land in lifts and compacted under controlled conditions to achieve a uniform and dense mass which is capable of supporting structural loading, as necessary, or supporting other uses such as recreation, agriculture, and open space in order to provide land that is appropriate for an end use consistent with approved local general and specific plans (e.g., roads, building sites, or other improvements) where an engineered fill is required to facilitate productive use(s) of the land. (See CCR, Title 14, Section 17388.)

Inert Debris Type A Disposal Facility

Defined in CCR, Title 14, Section 17388 as "a site where only Type A inert debris is disposed to land. Inert debris Type A disposal facilities do not include inert debris engineered fill operations."

Inert Waste

Defined in CCR, Title 14, Section 18720 (32) as "a non-liquid solid waste including, but not limited to, soil and concrete, that does not contain hazardous waste or soluble pollutants at concentrations in excess of applicable water-quality objectives established by a regional water board pursuant to division 7 (commencing with section 13000) of the California Water Code [CWC], and does not contain significant quantities of decomposable solid waste."

Inert Waste Landfill

Refers to landfills that accept inert waste. CCR, Title 14, Section 18720 (32) defines inert waste as "a non-liquid solid waste including, but not limited to, soil and concrete, that does not contain hazardous waste or soluble pollutants at concentrations in excess of applicable water-quality objectives established by a regional water quality board pursuant to division 7 (commencing with section 13000) of the California Water Code [CWC] and does not contain significant quantities of decomposable solid waste."

Integrated Solid Waste Management

Refers to a management system composed of the following actions, steps, methods, processes, and facilities planning, financing, regulation, operation, management, and one or more of the following actions, services, operations, systems, methods, or facilities: reduction of solid waste generation (source reduction), collection, transfer, materials recycling, composting, conversion, combustion (incineration or waste-to-energy), and disposal.

Integrated Waste Management Task Force

Refers to the Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force.

Intermodal

Refers to the transport of freight by two or more modes of transportation (e.g., rail to truck, ship to rail, etc.).

Intermodal Facility

Refers to a site consisting of tracks, lifting equipment, and a control point for the transfer of solid waste by means that involve rail transport (e.g., rail to truck, ship to rail, etc.), or vice versa.

Joint Powers Authority (JPA)

Defined in CGC, Section 6500 et seq. as "two or more public agencies jointly exercising any power held in common, if authorized by their legislative or other governing bodies."

Joint Technical Document (JTD)

Refers to a technical document that includes all applicable information required under Article 4 of Subchapter 3 of this chapter (§21710 et seq.), in addition to all information necessary to support the development (or modification, as appropriate) and issuance of any state or local agency permits, other than the conditional use permit, required to operate the Unit (but not limited to the lateral expansion of any Unit) set forth in Section 21585(a), Title 27 of the CCR. The discharger is responsible for identifying all state and local agencies for which the JTD will serve as a joint permitting information document, pursuant to (a). Nevertheless, for a landfill, the list of agencies addressed in the JTD shall include at least the Regional Water Quality Control Board (RWQCB), the California Department of Resources Recycling and Recovery (CalRecycle), the Enforcement Agency (EA), and the AQMD or APCD, pursuant to Section 21585(2), Title 27 of the CCR. After July 18, 1997, for any Unit jointly regulated by the RWQCB and another state agency (or agencies), the report of waste discharge (ROWD) submitted to the RWQCB in support of the development or revision of the Waste Discharge Requirements (WDRs) for that Unit shall be in the form of a joint technical document (JTD), pursuant to Section 21585(2), Title 27 of the CCR.

Jurisdiction

Refers to 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.

Land Application Unit

Defined in CCR, Title 27, Section 20164 as "an area where wastes are applied onto or incorporated into the soil surface (excluding manure spreading operations) for agricultural purposes or for treatment and disposal."

Landfill

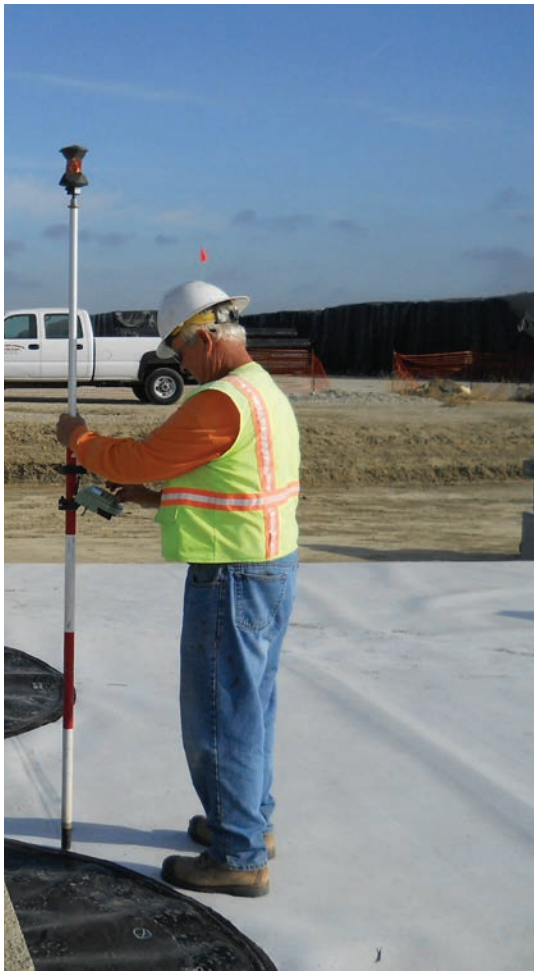
Defined in CCR, Title 27, Section 20164 as "a waste management unit at which waste is discharged in or on land for disposal. It does not include surface impoundment, waste pile, land treatment unit, injection well, or soil amendments."

Landfill Gas

Refers to gas generated by the natural aerobic and/or anaerobic decomposition of municipal solid waste in sanitary landfills.

Landfill Gas Condensate

Defined in CCR, Title 27, Section 20164 as "liquids which are removed from a gas control system at a landfill and which are produced by the condensation of landfill gas being conveyed by that system. The term ceases to apply to such liquid upon its being treated to the extent that it no longer contains any constituent of concern whose concentration exceeds the water quality objectives of ground water in the uppermost aquifer underlying the waste management unit."



Landfill Survey

Refers to a comprehensive examination of the disposal site under the direction of a registered civil engineer or licensed land surveyor for the purposes of determining the topography of the base, existing and finished ground surfaces, and the volumes bound by those surfaces.

Land Use Designation

Refers to the process of describing and designating the distribution of land uses by type, location, intensity, and extent of use. Designations show land planned for development as residential, commercial, industrial, open space, public facilities, and other categories of public and private land use.

Large Volume Construction, Demolition, and Inert (CDI) Debris Processing Facility

Refers to a site that receives 175 tons or more of any combination of C & D debris and Type A inert debris per operating day for the purposes of storage, handling, transfer, or processing. Type A inert debris includes, but is not limited to, concrete (including fiberglass or steel reinforcing bar embedded in the concrete), fully cured asphalt, crushed glass, fiberglass, asphalt or fiberglass roofing shingles, brick, slag, ceramics, plaster, clay, and clay products. Type A inert debris is waste that does not contain soluble pollutants at concentrations in excess of water quality objectives and has not been treated in order to reduce pollutants.

Lateral Expansion

Defined in CCR, Title 27, Section 20164 as "a horizontal expansion beyond the disposal area boundary."

Lateral Expansion (beyond Existing Footprint)

Defined in CCR, Title 27, Section 20164 as [applying] only to an existing MSW landfill that is subject to the federal regulations under 40 CFR 258, and means any portion of the landfill which—in map view—is contiguous with the landfill's Existing Footprint (as defined in this section) and which receives waste after the landfill's Federal Deadline (as defined in this section).

Lateral Expansion (of RWQCB-Permitted Area)

Defined in CCR, Title 27, Section 20164 as "for any new or existing waste management unit (Unit), means any increase–in map view–of the Unit's RWQCB-Permitted Area (as defined in this section)."

Leachate

Defined in CCR, Title 27, Section 20164 as "any liquid formed by the drainage of liquids from waste or by the percolation or flow of liquid through waste. It includes any constituents extracted from the waste and dissolved or suspended in the fluid. The term ceases to apply to such liquid upon its being mingled with ground water outside the Unit's liner system. The term also ceases to apply to such liquid upon its being treated to the extent that it no longer contains any constituent of concern whose concentration exceeds the water quality objectives of ground water in the uppermost aquifer underlying the waste management unit."

Limited Volume Transfer Operation

Defined in CCR, Title 14, Section 17402 (a)(9) "an operation that receives less than 60 cubic yards, or 15 tons of solid waste per operating day for the purpose of storing the waste prior to transferring the waste to another solid waste operation or facility and which does not conduct processing activities, but may conduct limited salvaging activities and volume reduction by the operator. (A) In determining the tonnage of solid waste received by the operation, the following materials shall not be included: materials received by a recycling center located within the operation, and by beverage container recycling programs in accordance with [PRC] sections 14511.7, 14518, or 14520, if the recycling activities are separated from the solid waste handling activities by a defined physical barrier or where the activities are otherwise separated in a manner approved by the EA. (B) If the operation does not weigh the solid waste received, then the tonnage shall be determined by using a volumetric conversion factor where one cubic yard is equal to 500 pounds. The EA shall approve an alternate conversion factor if the operator demonstrates that it is more accurate than the required conversion factor."

Liner

Defined in CCR, Title 27, Section 20164 as "a continuous layer of natural or artificial material, or a continuous membrane of flexible artificial material, or a continuous composite layer consisting of a membrane of flexible artificial material directly overlying a layer of engineered natural material, which is installed beneath or on the sides of a waste management unit (Unit), and which acts as a barrier to both vertical or lateral fluid movement."

Liner System

Defined in CCR, Title 27, Section 20164 as "the entire sequence of individual liners, composite liners, and leachate collection system(s) which prevent or minimize releases from the waste management unit."

Local Air District

Defined in CCR, Title 27, Section 20164 as "the local Air Quality Management District (AQMD) or the local Air Pollution Control District (APCD)."

Local Enforcement Agency (LEA)

Defined in CCR, Title 14, Section 18011(16) as "an enforcement agency with [CalRecycle] certification(s) totally separate from the operating unit(s) of the local governing body. An LEA is a comprehensive solid waste enforcement agency which performs permitting, inspection, and enforcement duties for solid waste handling, and permitted, closed, abandoned, exempt, illegal, and inactive facilities. An LEA is solely responsible for carrying out solid waste enforcement in its jurisdiction as defined in [CCR, Title 14, Division 7; CCR, Title 27, Division 2, Subdivision 1 ([Section] 20005 et seq.); and PRC, Division 30]. Upon certification(s) the LEA shall have full power to execute the Act and the regulations adopted hereto."

Local Governing Body

Defined in PRC, Section 40150 as "the legislative body of the city, county, or special district which has authority to provide solid waste handling services"; and per CCR, Title 27, Section 20164, "any other special political subdivision, but it is not the State."

Low Emission Vehicle (LEV)

Refers to a vehicle which is certified to meet the ARB 1994 emission standards for low emission vehicles.

Major Class III Landfill

Refers to a Class III landfill which is permitted to receive 250,000 tons or more of solid waste per year.

Major Landfill

Refers to 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)

Refers to a solid waste facility where solid waste or recyclable materials are sorted or separated, by hand or by use of machinery, for the purposes of recycling, composting, or use as feedstock for alternative technology facilities.

Maximum Permitted Daily Capacity

Refers to 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 (SWFP) (full or registration tier permit only), Land Use/Conditional Use Permit (LUP/CUP), Waste Discharge Requirements, and Permit to Operate, whichever is more restrictive.

Mega Fills

Refer to a term used to describe large (more than 2,000 tons per day (tpd)) regional landfills established normally by private owners to provide landfill capacity from very large geographical areas. The vast majority of the solid waste received is transported by transfer systems.

Mega Landfills

Refer to a landfill having a planned waste footprint of over 1,500 acres, well over 6,000 tpd capacity, and a useful life estimated at 50 to 100 years.

Ministerial Action

Refers to an action where a public agency or body merely has to determine whether there has been conformity with applicable statutes, ordinances, or regulations.

Minor Change

Refers to a change that is: (a) subject to the authority of the EA acting pursuant to the Integrated Waste Management Act or regulations promulgated under such Act; and (b) consistent with State minimum standards pursuant to Chapter 3 of Division 7 or applicable minimum standards in Title 14 (commencing with section 17200), and including financial assurance and operating liability criteria pursuant to Chapter 6 of this subdivision if applicable; and (c) consistent with the terms and conditions in the current SWFP; and (d) not in conflict with the design and operation of the facility as provided in the current RFI pursuant to CCR, Title 14, Sections 17346.5, 17863, 17863.4, 18223.5, or 18227.

Minor Class III Landfill

Refers to a Class III landfill which is permitted to receive less than 250,000 tons of solid waste per year.

Minor Landfill

Refers to 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).

Mobile Sources

Refer to the sources of air pollution such as automobiles, motorcycles, trucks, off-road vehicles, boats, and airplanes.

Modified Solid Waste Facility Permit

Defined in CCR Title 27, Section 21665 (d) as a permit that is determined based on a proposed change. The permit qualifies as a modified solid waste facilities permit if the proposed change does not meet all the criteria specified under CCR Title 27, Section 21665(c), and meets either of the following criteria: (1) the EA determines that the proposed change is a nonmaterial change as specified in §21563(d)(5), or (2) the EA determines that the proposed change is such that the solid waste facilities permit does not need to include further restrictions, prohibitions, mitigations, terms, conditions or other measures to adequately protect public health, public safety, ensure compliance with State minimum standards or to protect the environment.

Municipal Solid Waste

Defined in CCR, Title 14, Section 18720(40) as "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."

Municipal Solid Waste Landfill or Municipal Solid Waste Landfill Unit

Defined in CCR, Title 27, Section 20164 as "any landfill that is subject to the federal regulations of 40 CFR 258, including any portion of a disposal site that is subject to those regulations. The term includes any landfill, other than a Class I landfill, that received municipal solid waste at any time and that has received any solid waste since October 9, 1991; therefore, the term does not include any landfill that stopped receiving waste prior to that date."

Municipal Solid Waste Resource Recovery

Refers to the recovery and utilization of resources (energy or materials) from municipal solid waste.

National Ambient Air Quality Standards (NAAQS)

Refer to the standards set by the USEPA for the maximum levels of air pollutants which can exist in the outdoor air without unacceptable effects on human health or the public welfare.

New Source Review (NSR)

Refers to a program used in development of permits for new or modified industrial facilities which are in a nonattainment area, and which emit nonattainment criteria air pollutants. The two major requirements of NSR are Best Available Control Technology (BACT) and Emission Offset.

Nitrogen Oxides (NO_x)

Refers to a general term pertaining to compounds of nitric acid (NO), nitrogen dioxide (NO_2), and other oxides of nitrogen. Nitrogen oxides (NO_x) are typically created during combustion processes, and are major contributors to smog formation and acid deposition. NO_2 is a criteria air pollutant, and may contribute to numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility.

Non-Attainment Area

Refers to a geographic area identified by the United States Environmental Protection Agency (USEPA) and/or California Air Resources Board (ARB) as not meeting either National Ambient Air Quality Standards (NAAQS) or California Ambient Air Quality Standards (CAAQS) standards for a given pollutant.

Nondisposal Facility

Defined in PRC, Section 40151 as "any solid waste facility required to obtain a permit pursuant to Article 1 (commencing with 44001) of Chapter 3 of Part 4, except a disposal facility or a transformation facility."

Nondisposal Facility Element

Defined in PRC, Section 41732 as a planning document to be prepared by each county and city and regional agency which shall "include a description of any new solid waste facilities and the expansion of existing solid waste facilities that will be needed to implement the jurisdiction's Source Reduction and Recycling Element (SRRE). It may also include the identification of specific locations or general areas for new solid waste facilities that will be needed to implement the jurisdiction's Source Reduction and Recycling Element.

Nonhazardous Solid Waste

Defined in CCR, Title 27, Sections 20164 and 20220(a) as "all putrescible and nonputrescible solid, semi-solid, 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, manure, vegetable or animal solid and semi-solid wastes and other discarded waste (whether of solid or semi-solid consistency); provided that such wastes do not contain wastes which must be managed as hazardous wastes, or wastes which contain soluble pollutants in concentrations which exceed applicable water quality objectives, or could cause degradation of waters of the state (i.e., designated waste)."

Non-Permitted Inert Waste Landfill

Refers to those inert waste landfills that are still undergoing reclassification under the Construction and Demolition Debris Phase II Regulation. These inert waste landfills also do not have a SWFP, and are therefore excluded from the disposal capacity analysis as a result of changes in State law. There are three inert waste landfills in Los Angeles County currently undergoing reclassification, namely, Atkinson Brick Company, Montebello Land and Water Company, and Strathern Landfill.

On-Site

Defined in CCR, Title 27, Section 20164 as "located within the permitted boundary."

Operating

Defined in CCR, Title 27, Section 20164 as "currently active or the period of site activity from the first receipt of waste until the final receipt of waste consistent with the normal pattern of operation in the solid waste facility permit."

Operator

Defined in CCR, Title 27, Section 20164 as "the landowner or other person who through a lease, franchise agreement or other arrangement with the landowner becomes legally responsible to the State for including, but not limited to, the following requirements for a solid waste facility or disposal site: (a) obtaining a solid waste facility permit; (b) complying with all applicable federal, state and local requirements; (c) the physical operation of the facility or site; and (d) closing and maintaining the site during the postclosure maintenance period."

Organic

Refers to material containing carbon and hydrogen. Organic material in municipal solid waste includes the biomass components of the waste stream as well as hydrocarbons usually derived from fossil sources (e.g., most plastics, polymers, the majority of waste tire components, and petroleum residues).

Organic Chemical or Compound

Refers a substance produced by animals or plants that contains mainly carbon, hydrogen, and oxygen.

Organic Matter

Refers to a material that comes from organisms that were once alive, or derived from or produced through the biological activity of a living thing.

Oxidation

Refers to the chemical process of adding oxygen to break down pollutants or organic waste, e.g., destruction of chemical compounds in sewage by bacterial and chemical means.

Ozone

Refers to a strong smelling, pale blue, reactive toxic chemical gas consisting of three oxygen atoms. It is a product of the photochemical process involving the sun's energy. Ozone exists in the upper atmosphere ozone layer as well as at the earth's surface. At the earth's surface, pollutants emitted from society's activities react in the presence of sunlight to form ozone. Principal pollutants involved in these reactions are nitrogen oxides (NOx) and volatile organic compounds (VOCs); carbon monoxide (CO) also participates in the reactions to help form ozone. All of these compounds (NOx, VOCs, and CO) are termed ozone precursors. Ozone at the earth's surface causes numerous adverse health effects and is a criteria air pollutant. Ozone is a major component of smog.

Ozone Precursors

Refer to chemical compounds such as carbon monoxide, methane, nonmethane hydrocarbons, and nitrogen oxides, which in the presence of solar radiation react with other chemical compounds to form ozone, a major component of smog.

Partial Final Closure

Defined in CCR, Title 27, Section 20164 as "the closure of discrete units of a site consistent with the approved closure and postclosure maintenance plan."

Particulate Matter (PM)

Refers to solid or liquid particles of soot, dust, smoke, fumes, and aerosols.

Particulate Matter Less than 10 Microns (PM_{10})

Refers to a major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. The size of the particles (10 microns or smaller, about 0.0004 inches or less) allows them to easily enter the air sacs in the lungs where they may be deposited, resulting in adverse health effects. PM10 also causes visibility reduction and is a criteria air pollutant.

Particulate Matter Less than 2.5 Microns ($PM_{2.5}$)

Refers to a major air pollutant consisting of tiny solid or liquid particles, generally soot and aerosols. The size of the particles (2.5 microns or smaller, about 0.0001 inches or less) allows them to easily enter the air sacs deep in the lungs where they may cause adverse health effects, as noted in several recent studies. PM2.5 also causes visibility reduction, but is not considered a criteria air pollutant at this time.

Permits

Refer to the formal authorizations issued by a local government to a profit business venture to provide a service within the legal jurisdiction of that local government. Permits are also called licenses. Permits may be as simple as authorization to do business, to very complex with many conditions governing how the permitted business operates. In most instances, there is a fee for issuing a permit.

Permitted Capacity

See "Permitted Disposal Capacity."

Permitted Disposal Capacity

Refers to 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 (SWFP) (full or registration tier permit only), Land/Conditional Use Permit (LUP/CUP), Waste Discharge Requirements (WDR), and Permit to Operate issued by the local Air Quality Management/Air Quality Control District, whichever is more restrictive.

Permitted Landfill

See "Permitted Solid Waste Landfill."

Permitted Solid Waste Disposal Capacity

Refers to the term "Permitted Disposal Capacity" or "Permitted Capacity" or the "Maximum Permitted Daily Capacity" as defined in CCR, Title 14, Section 18720.

Permitted Solid Waste Landfill or Permitted Landfill

Defined in CCR, Title 14, Section 18720 (50) as "a solid waste landfill for which there exists a current [SWFP] issued by the [LEA] and concurred in by [CalRecycle], or which is permitted under the regulatory scheme of another state."
For the purpose of the Los Angeles County Countywide Siting Element (CSE) and in concert with the requirements of CCR, Title 14, Section 18720, a permitted solid waste landfill (permitted landfill) refers to a solid waste landfill facility for which there exists: (1) a current SWFP issued by the LEA and concurred in by CalRecycle, (2) an LUP/CUP issued by the local jurisdiction's land use authority, (3) Waste Discharge Requirements issued by the appropriate California Regional Water Quality Control Board, and if applicable (4) a Permit to Operate issued by local Air Quality Management/Air Pollution Control Districts.

Permitted Solid Waste Facility

Defined in CCR, Title 14, Section 18720(51) as "a solid waste facility for which there exists a [SWFP] issued by the [LEA] and concurred in by [CalRecycle], or which is permitted under the regulatory scheme of another state."

Permitted Transformation Facility

Refers to a transformation facility which is fully permitted, for which there exists: (1) a current SWFP issued by the LEA and concurred with by CalRecycle; (2) an LUP/CUP issued by the local jurisdiction's land use authority; (3) a Permit to Operate issued by the local Air Quality Management/Air Pollution Control District; and, if applicable, (4) Waste Discharge Requirements issued by the appropriate California Regional Water Quality Control Board.

Planning Period

Refers to the 15-year planning period defined to begin with the year in which the CSE is prepared or revised. For the purpose of the CSE, "Planning Period" refers to the period beginning in the year 2013 and ending in the year 2033.

Point of Collection

Refers to a geographical point on a generator's property where storage containers are placed for collection service.

Policies

Refer to the strategies which will be implemented to achieve the goals pursuant to CCR, Title 14, Section 18755.1. The policies presented in the CSE are based upon environmentally sound, and technically and economically feasible concepts.

Pollution

Defined in PRC, Section 40171 as "the condition caused by the presence in or on a body of water, soil, or air of any solid waste or substance derived therefrom 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."

Postclosure Maintenance

Defined in CCR, Title 27, Section 20164 as "all activities undertaken at a closed waste management unit to maintain the integrity of containment features and to monitor compliance with applicable performance standards."

Postclosure Maintenance Period

Defined in CCR, Title 27, Section 20164 as "the period after closure of a waste management unit (Unit) during which the waste in the Unit could have an adverse effect on the quality of the waters of the state."

Postclosure Maintenance Plan

Refers to a description of the specific inspection, monitoring, and maintenance tasks and the schedule for the operator to implement during the post closure period.

Post-Recycled

Refers to material remaining after recycling that would have otherwise gone to disposal.

Potential Site

Refers to 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.

Prevention of Significant Deterioration (PSD)

Refers to a program used in development of permits for new or modified industrial facilities in an area that is already in attainment. PSD's intent is to prevent an attainment area from becoming a non-attainment area. This program, like NSR, can require BACT and, if an AAQS is projected to be exceeded, Emission Offsets.

Processing

Refers to the reduction, separation, recovery, conversion, or recycling of solid waste.

Processing Station

See "Transfer Station."

Product Stewardship

Refers to the act of minimizing the health, safety, environmental, economic, and social risks throughout all lifecycle stages of a product and its packaging. The producer of the product has the greatest ability to minimize adverse impacts, but other stakeholders, such as suppliers, retailers, and consumers, also play a role. Stewardship can be either voluntary or required by law.

Property Site Acreage

Refers to the location or site of the real property on which a facility or disposal site, any part thereof, or any support structure exists or is proposed to exist, including any portion of such real property that is not occupied by the facility or any support structure but that is contained within the legal description of the land on which the facility is located as that description is set forth in the most recently recorded deed.

Public Information Meeting

Defined in CCR, Title 27, Section 21563 (d)(4) as "a meeting where the public is invited to hear and comment on the preliminary determination of the action to be taken by the EA on an accepted application package. The meeting is strictly informational and no official decision is made at the meeting regarding the formal determination on the solid waste facilities permit application. EA-conducted Informational Meetings fulfill the requirements set forth in [PRC Section] 44004 related to holding a 'public hearing', unless the EA substitutes another meeting/hearing that meets the provisions in [Section] 21660.4. The definition used herein, does not apply to public hearings, or hearings before hearing panels or hearing officers set forth in [PRC Section] 44300, Chapter 4, Articles 1 and 2, having to do with denial of solid waste facilities permits and related recourses."

Public Utility Regulation and Policy Act (PURPA), 1981

Refers to a congressional law that, among its statutes, directs public and private utilities to purchase power from waste-to-energy facilities.

Public Works

Refers to Los Angeles County Public Works.

Putrescible Solid Waste

See "Putrescible Waste."

Putrescible Waste

Defined in CCR, Title 14, Section 17381 as "solid wastes that are capable of being decomposed by micro-organisms with sufficient rapidity as to cause nuisances because of odors, vectors, gases or other offensive conditions, and include materials such as, but not limited to, food wastes, offal and dead animals. The EA shall determine on a case-by-case basis whether or not a site is handling putrescible wastes."

Pyrolysis

Refers to a chemical decomposition process achieved by heating organic (carbonaceous) materials in the absence or near absence of oxygen.

Rail-Haul

Refers to the rail transportation of solid waste between a solid waste station with rail-loading capability and an out-of-County solid waste landfill, transformation facility, conversion technology facility, , etc.

Rail-Loading Facilities

Refer to unimodal facilities at which goods are loaded directly onto a railcar for rail transport.

Rail Yards

Refer to locations with a complex series of railroad tracks for storing, switching, sorting, or loading/unloading railroad cars and/or locomotives. Rail yards have many parallel tracks to keep rolling stock stored off the main line as to not obstruct the flow of traffic. Rail yards are normally built with storage capacity for railroad cars while they are not being loaded or unloaded, or are waiting to be assembled into trains.

Railroad Yards

Refer to all rail yards, intermodal, and rail-loading facilities.

Recovery

Refers to any waste management operation that diverts a material from the waste stream and which results in a product with a potential economic or ecological benefit. Recovery mainly refers to the following operations 1) re-use, 2) material recovery such as recycling 3) biological recovery such as composting, and 4) energy recovery such as fuel production.

Recycling

Defined in PRC, Section 40180 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 by [PRC,] Section 40201 or EMSW conversion."

Refuse

See "Solid Waste."

Refuse-Derived Fuel (RDF)

Refers to 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.

Registered Civil Engineer

Defined in CCR, Title 27, Section 20164 as "a civil engineer registered by the State of California, pursuant to section 6762 of the Business and Professions Code."

Regional Water Board

Refers to the California Regional Water Quality Control Board.

Regional Water Quality Control Board (RWQCB)

Defined in CCR, Title 27, Section 20164 as having "the same meaning as the latter term as described under Division 7 of the [CWC]." Defined in CWC, Division 7, as "any California regional water quality control board for a region."

Remaining Permitted Capacity

Refers to the most current estimated remaining volumetric capacity (landfills only) as reported to the Financial Assurances Branch annually by owner/operator of the facility, or the most current remaining capacity information from a new or revised permit or closure plan or permit application information (CIWMB form E-77 (Rev. 8-04)).

Removal

Defined in CCR, Title 27, Section 20164 as "the act of taking solid wastes from the place of waste generation either by an approved collection agent or by a person in control of the premises."

Renewables Portfolio Standard

Defined in California Public Utilities Code Section 399.12(f) as "the specified percentage of electricity generated by eligible renewable energy resources that a retail seller is required to procure pursuant to this article or the obligation of a local publicly owned electric utility to meet its renewables portfolio standard implemented pursuant to Section 387."

Report of Disposal Site Information (RDSI)

Refers to a disposal facilities' operation and design plan that describes the facility and how it will comply with State minimum standards as described in CCR, Title 27, Section 21600.

Report of Facility Information (RFI)

Refers to "an operation and design plan that describes the facility and how it will comply with State Minimum Standards. RFIs are required to be kept current." (See Local Enforcement Agency Permit Toolbox at http://www.calrecycle.ca.gov/.)

Reserved Site

Refers to a site/area identified as potentially suitable for development of new and/or expansion of existing Class III landfills, inert waste landfills, and alternative technology facilities (e.g., conversion technology, transformation) 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 as a solid waste disposal site is listed among potential uses for the area in the local jurisdiction's General Plan. Otherwise, the identified sites and/or areas are considered "tentatively reserved" and not consistent with the local jurisdiction's General Plan.

Residential Solid Waste

Refers to material remaining after source reduction, recycling, and processing for beneficial products (reusing).

Residual Solid Waste

Refers to the post-recycled content or remaining solid waste after municipal solid waste (MSW) has gone through the recycling, source reduction, and reuse method.

Route

Refers to a round of stops to collect solid waste or a path regularly visited by a collection vehicle.

Roll-Off Container

Refers to a container used for the storage, collection, and transport of commercial, institutional, or industrial solid waste. The container is pulled onto the tilt-frame of the collection vehicle with a cable by winch, reeving cylinders, or by hooks and taken to a solid waste management facility for emptying. Normally, an empty roll-off container is delivered to a customer at the time of collection, rolled off, and left for future use. Frequently referred to as a "box."

Roll-Off Service

Refers to a system for storing and collecting solid waste. The container used for storage is transported to the point of collection by a special collection vehicle. The roll-off container is then "rolled off" the collection vehicle and left for filling. When it is ready to be serviced an empty container is delivered to the point of collection, rolled off, and the full container is loaded onto the collection vehicle and taken to a solid waste or recyclables management facility.

Rubbish

Referred to in CCR, Title 27, Section 20164 as non-putrescible solid wastes such as ashes, paper cardboard, tin cans, yard clippings, wood, glass, bedding, crockery, plastics, rubber by-products, or litter.

Salvaging

Defined in CCR, Title 27, Section 20164 as "the controlled removal of waste material for utilization."

Sanitary Landfill

See "Class III Landfill."

Scavenging

Defined in CCR, Title 27, Section 20164 as "the uncontrolled and/or unauthorized removal of solid waste materials, or recyclable material at a solid waste facility."

Seasonal

Defined in CCR, Title 14, Section 18720 as "those periods of time during the calendar year which are identifiable by distinct cyclical patterns of local climate, demography, trade, or commerce."

Service Area

Refers to a geographic area provided with solid waste collection service. Service areas are normally divided into districts to provide collection services.

Significant Change

Refers to changes in the design or operation of a disposal such as:
(1) an increase in maximum amount of permitted tonnage of all waste received on a daily basis or during another time period; (2) an increase in the facility's permitted acreage; (3) an increase in the permitted hours of operation; and (4) for landfills, an increase in permitted volume (airspace) or quantity (tonnage), disposal footprint permitted (final grade) or maximum overall elevation. Typically, these changes may require: (a) compliance with the requirements of California Environmental Quality Act (CEQA); (b) issuance or modification of a facility's land use permit/conditional use permit, and/or Waste Discharge Requirements; (c) issuance of a Revised Solid Waste Facility Permit (SWFP) pursuant to CCR Title 27, Section 21665(e) as defined in Sections 21620(a)(4). Specifically excluded are any changes in design or operation that are necessitated by regulatory changes or changes to permits that are ministerial or non-material in nature.

Site

Defined in CCR, Title 14, Section 17388 as "the area where the handling of solid waste, and/or recyclable materials occurs at an operation or facility subject to [CCR, Title 14, Article 5.95]."

Site Specific

Defined in CCR, Title 27, Section 20164 as "specific to the local site."

Siting Element

See "Countywide Siting Element."

Countywide Siting Element (CSE)

Refers to a planning document required by the California Integrated Waste Management Act of 1989 (AB 939), as amended (Section 40000 et seq. of the PRC) which provides a description of the areas to be used for development of adequate transformation or disposal capacity concurrent and consistent with the development and implementation of the county and city source reduction and recycling elements pursuant to Section 41700 of the PRC.

Small Volume Construction, Demolition, and Inert (CDI) Debris Processing Operation

Refers to a site that receives less than 25 tons of any combination of C&D debris and Type A inert debris per operating day for the purposes of storage, handling, transfer, or processing.

Small Volume Transfer Station

Refers to stations which receive less than 100 cubic yards of waste per operating day . The standards for small volume transfer stations do not apply to those locations where less than 15 cubic yards of combined container volume is provided to serve as community or multi-residence receptacles for residential refuse, nor do they apply to storage receptacles for waste from multi-residential buildings or for commercial solid wastes, a container used to store construction or demolition wastes at the place of generation, or containers used to store salvaged materials.

Smog

Refers to a combination of smoke, ozone, hydrocarbons, nitrogen oxides, and other chemically reactive compounds which under certain conditions of weather and sunlight, may result in a murky brown haze that causes adverse health effects. Motor vehicles are the primary source of smog in California.

Solid Waste

Defined in PRC, Section 40191 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 [California] Health and Safety Code [HSC]). (3) Medical waste regulated pursuant to the Medical Waste Management Act (Part 14 (commencing with Section 117600) of Division 104 of the [HSC]). 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

See "Disposal."

Solid Waste Disposal Capacity

Refers to 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 a jurisdiction over a specified period of time.

Solid Waste Disposal Facility

Refers to Class III landfills, inert waste landfills, alternative technology facilities (e.g., certain conversion technology, transformation), and other emerging technology facilities, pending clarification of the regulatory status of the alternative technology facilities.

Solid Waste Facility

PRC, Section 40194 states that a "solid waste facility" includes a solid waste transfer or processing station, a composting facility, a gasification facility, a transformation facility, an EMSW conversion facility, and a disposal facility. For purposes of Part 5 (commencing with Section 45000), 'solid waste facility' additionally includes a solid waste operation that may be carried out pursuant to an enforcement agency notification, as provided in regulations adopted by the department.

Solid Waste Facility Owner

Refers to a person who holds title to solid waste facility site property.

Solid Waste Facility Permit

Refers to a "full permit" required pursuant to PRC, Sections 44001and 44002, state that "no person shall operate a solid waste facility without a solid waste facilities permit", or "any person who proposes to become an operator of a solid waste facility shall file with the enforcement agency having jurisdiction over the facility, or the board if there is no designated and certified enforcement agency, an application for a solid waste facilities permit".

Solid Waste Landfill

Defined in PRC, Section 40195.1 as "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, 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 landfills and inert waste landfills.

Solid Waste Landfill Facility

Refers to a disposal site which employs an engineered method for 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 inert waste landfills.

Solid Waste Management

Defined in Section 20164, Title 27 of CCR as "a planned program for effectively controlling the generation, storage, collection, transportation, processing and reuse, conversion or disposal of solid wastes in a safe, sanitary, aesthetically acceptable, environmentally sound and economical manner. It includes all administrative, financial, environmental, legal and planning functions as well as the operational aspects of solid waste handling, disposal and resource recovery systems necessary to achieve established objectives."

Solid Waste Management Facility

Refers to transfer stations, composting and mulching facilities, materials recovery facilities, transformation, alternative technology facilities (e.g., conversion technology) and landfills that receive solid waste and/or recyclables for management.

Solid Waste Management Infrastructure

Refers to the basic framework of a system to manage solid waste, including institutional, financial, regulatory, operational, and organizational processes.

Solid Waste Station

Refers to transfer and processing stations, materials recovery facilities, and/or transfer stations as permitted by the applicable Local Enforcement Agency (LEA) and/or the California Department of Resources Recycling and Recovery (CalRecycle).

Source Reduction and Recycling Element (SRRE)

Refers to 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 every county and city in the State to identify how each jurisdiction met the mandatory waste diversion goals of 25 percent by 1995 and 50 percent by 2000.

State

Refers to the State of California.

State Implementation Plan (SIP)

Refers to a document prepared by each state describing existing air quality conditions and measures which will be taken to attain and maintain national ambient air quality standards.

State Minimum Standards

Defined in CCR, Title 27, Section 20164 as "the following sections of this Subdivision for the purposes of implementing [PRC] Section 44104: 20510 to 20701, 20710 to 20937, 21100 to 21200, 21430 and 21600."

State Water Board

Refers to the State Water Resources Control Board.

Stationary Sources

Refer to the non-mobile sources, such as power plants, refineries, and manufacturing facilities, which emit air pollutants.

Status Quo

Refers to the Latin term that translates as "state in which," meaning the existing state of affairs or the existing state or condition.

Storage Container

Refers to a container used to store solid waste. Storage containers are used in residential, commercial, institutional, and industrial applications. In each case, the containers are designed for their particular use. Frequently, generators use other non-specially designed containers to store solid waste.

Sulfur Dioxide (SO_2)

Refers to a strong smelling, colorless gas that is formed by the combustion of fossil fuels. Power plants, which may use coal or oil high in sulfur content, can be major sources of SO2. SO2 and other sulfur oxides contribute to the problem of acid deposition. SO2 is a criteria air pollutant.

Summary Plan

Refers to 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 AB 939 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.

Sunshine Canyon Landfill City Landfill

Refers to the previous (prior to January 1, 2009) activities of the Landfill and ancillary facilities and activities within the jurisdiction of the City, as approved by the City through the City Ordinance, and limited to the area depicted "Initial Development Area" on Exhibit "E-4C" of said City Ordinance, and as generally referred to in said Ordinance as Phase I. (See Conditional Use Permit No. 00-194-(5) for the Sunshine Canyon Landfill.)

Sunshine Canyon Landfill City/County Landfill

Refers to the previous (prior to January 1, 2009) activities of the combined City/County landfill conducted in either or both the City and County jurisdictions, the ultimate development of which is depicted on Exhibit "A-2" of Conditional Use Permit No. 00-194-(5) and on Exhibit "E-4B" of the City Ordinance (the portion of said Exhibit covering the City jurisdiction only), and which is generally referred to in the City Ordinance as Phase II and Phase III. The City/County Project includes the combined City/County landfill, its Ancillary Facilities and activities within the County's jurisdiction as approved by this grant, and the combined City/County landfill, ancillary facilities and activities within the City's jurisdiction as approved by the City Ordinance, including, but not limited to, waste diversion facilities, offices and other employee facilities, a leachate treatment facility, material storage areas, and Closure and Post-Closure Maintenance activities. (See Conditional Use Permit No. 00-194-(5) for Sunshine Canyon Landfill.)

Sunshine Canyon Landfill County Landfill

Refers to the previous (prior to January 1, 2009) activities of the Landfill within the area depicted on Exhibit "A-1," and other activities as approved by Conditional Use Permit No. 00-194-(5), which are conducted entirely within the County's jurisdiction. The County Project includes the Landfill and its Ancillary Facilities and activities as described in Condition 2, including, but not limited to, waste diversion facilities, offices and other employee facilities, a leachate treatment facility, Environmental Protection and Control Systems, material storage areas, and Closure and Post-Closure Maintenance activities. The County Project includes activities conducted within the County's jurisdiction prior to the commencement of the City-approved Phase II, as well as activities conducted within the County's jurisdiction in the event that the City's approval of Phase II or Phase III expires or terminates. County Project does not include activities conducted within the County's jurisdiction as part of the City/County Project. (See Conditional Use Permit No. 00-194-(5) for Sunshine Canyon Landfill.)

Task Force

Refers to the Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force.

Tentatively Reserved Site

Refers to 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

Refers to a fee for unloading or dumping waste at a solid waste management facility.

Transfer Station

See “Processing Station.”

Transformation

Defined in PRC, Section 40201 as “incineration, pyrolysis, distillation, or biological conversion other than composting. ‘Transformation’ does not include composting, gasification, EMSW conversion, or biomass conversion.”

Transformation Facility

Refers to a facility whose principal function is to convert, combust, or otherwise process solid waste by “incineration, pyrolysis, distillation, or biological conversion” for the purpose of volume reduction, synthetic fuel production, or energy recovery. Transformation facility does not include a composting, gasification, EMSW conversion, or biomass conversion facility.

Ultrafine Particles

Refer to particles with a diameter less than 0.1 micrometer.

Unclassified Landfill

Refers to a term used in the previous CSE (dated June 1997) to define “Inert Waste Landfill.”
See “Inert Waste Landfill.”

Unit

See “Waste Management Unit.”

Visibility

Refers to the distance that atmospheric conditions allow a person to see at a given time and location. Visibility reduction from air pollution is often due to the presence of sulfur and nitrogen oxides, as well as particulate matter.

Volatile Organic Compounds (VOCs)

Refer to the hydrocarbon compounds that are present in the ambient air. VOCs contribute to the formation of smog and/or may be toxic. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints.

Volume

Refers to 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 Discharge Requirement

Refers to a requirement established pursuant to Title 27, CCR, Section 20005 et seq., to determine whether a project complies with State water quality standards and will not result in adverse impacts to waters of the State.

Waste Management Facility

Defined in CCR, Title 27, Section 20164 as “the entire parcel of property at which waste discharge operations are conducted. Such a facility may include one or more waste management units.”

Waste Management Unit

Defined in CCR, Title 27, Section 20164 as "an area of land, or a portion of a waste management facility, at which waste is discharged. The term includes containment features and ancillary features for precipitation and drainage control and for monitoring."

Wasteshed

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

Waste Stream

Refers to the total flow of solid waste from homes, businesses, institutions, and manufacturing plants that must be recycled, reused, composted, converted to useful products or disposed of in a landfill; or any segment thereof, such as the "residential waste stream" or the "recyclable waste stream."

Waste-to-Energy

Refers to an incineration process in which the organic fraction of solid waste is combusted and the released heat is utilized to generate hot water, steam, and electric power, leaving the inorganic fraction (ash) as a residue. This process is also referred to as a mass-burn process.

Waste-to-Energy Facility

Refers to a transformation facility that engages in the cogeneration of electricity through the incineration of residual solid waste, such as the Commerce Refuse-to-Energy Facility located in the City of Commerce and the Southeast Resource Recovery Facility located in the City of Long Beach for the purpose of the CSE.

Waste-to-Cover Ratio

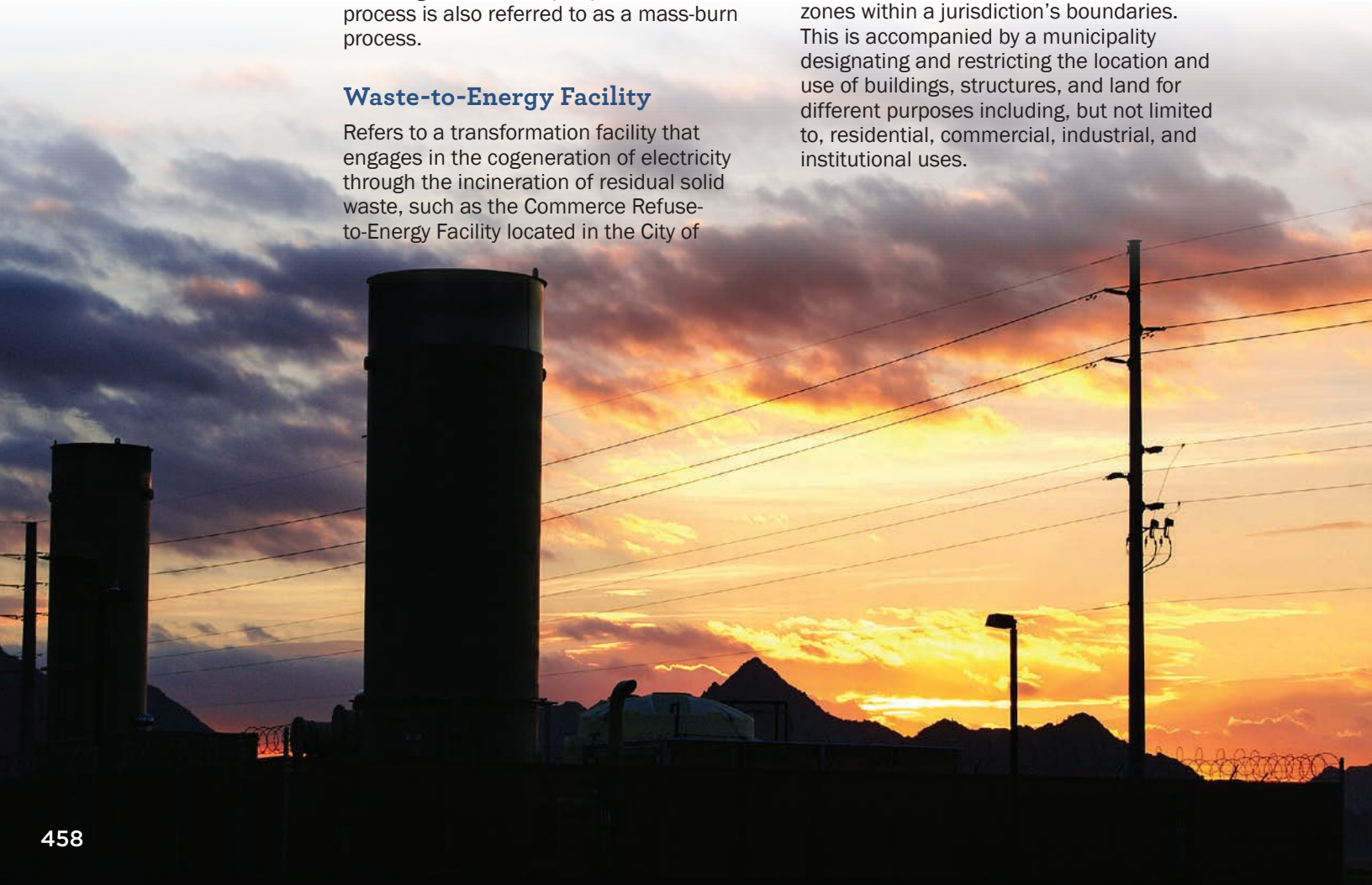
Defined in CCR, Title 14, Section 18801 as a "unit-less expression of the portion of the volumes of waste and cover that comprises a volume of compacted fill material, e.g., 4:1. The cover portion of the waste-to-cover ratio estimate should include only soil or approved daily or intermediate alternative cover that is not considered a waste material, i.e., payment of fees to [CalRecycle] is not required. The waste portion of the waste-to-cover ratio estimate should include only waste material for which payment of fees to [CalRecycle] is reported."

Yard Waste

See "Green Waste."

Zoning Designation

Refers to a designation that typically defines a wide range of uses for land and structures and then delineates which uses are either permitted as a matter of right; prohibited; or permitted by entitlement (conditional use permit or variance) in each of the designated zones within a jurisdiction's boundaries. This is accompanied by a municipality designating and restricting the location and use of buildings, structures, and land for different purposes including, but not limited to, residential, commercial, industrial, and institutional uses.

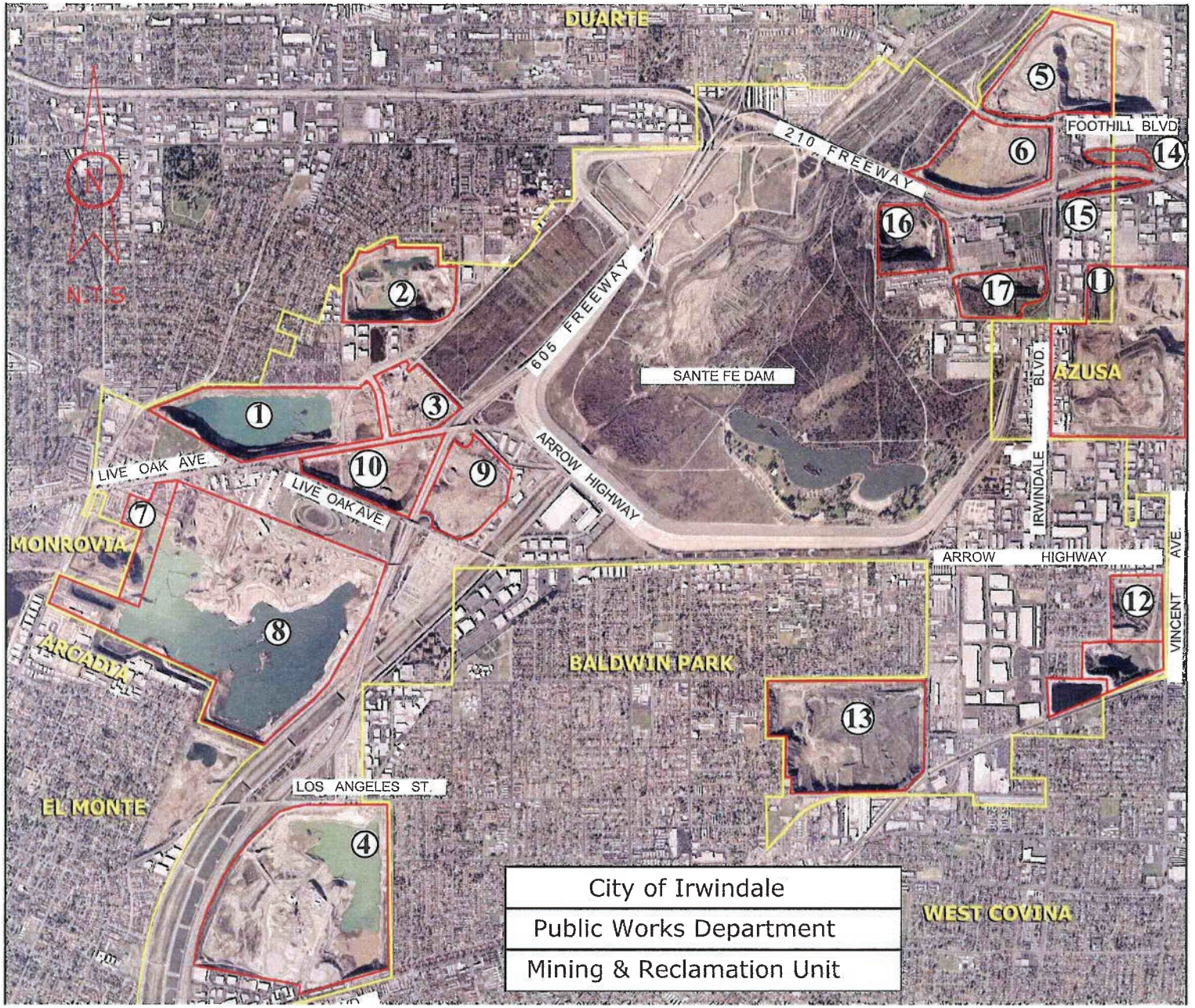


A

Appendices

APPENDIX 3-A

CITY OF IRWINDALE
MINING AND RECLAMATION SITES



IRWINDALE MINE SITES

1 United Rock Pit No. 2 (Inactive)
2 United Rock Pit No. 3 (Active)
3 United Rock Pit No. 4 (Active)
Owner: United Rock Products Corporation
Operator: Russ Caruso (General Manager)
Telephone #: (626) 739–1140

4 Vulcan Durbin (Inactive)
5 Vulcan Reliance I Quarry (Active)
6 Vulcan Reliance II Landfill (Active)
Owner: Vulcan Materials
Telephone #: (323) 258–2777
Operator (Durbin): Brian Ouellette
Telephone #: (626)856–6823
Operator (Reliance I&II): Mike Radford
Telephone #: (626) 856–6812

7 Peck Road Gravel Pit (Active)
Owner: S.L.S.&N.,Inc.(Peck Road Gravel Pit)
Operator: Nick Bubalo
Telephone #: (626) 574–1855

8 Hanson Quarry (Active)
Owner: Hanson Aggregates LLC
Telephone #: (805) 985–2191
Operator: Bryan Forgey
Telephone #: (626) 856–6717

9 Nu–Way Industries (Inactive)
Owner: Mnoian Management, Inc.
Operator: Jim Mnoian
Telephone #: (626) 294–9313

10 J.H. Pit (Nu–Way Arrow) (Active)
Owner: Nu–Way Arrow Land Reclamation
Operator: Brent Anderson
Telephone #: (626) 969–1384 ext. 47

11 Azusa Western (Inactive)
Owner: Azusa Land Reclamation
Operator: Brent Anderson
Telephone #: (626) 969–1384 ext. 47

12 Manning Pit (Pit No. 1) (Inactive)
13 Olive Pit (Pit No. 2) (Inactive)
14 N. Kincaid Pit (Pit No. 3)(Inactive)
Owner: City of Irwindale
Operator: Enoch Burrola, Edgar Rojas
Telephone #: (626) 430–2250/2210

15 S. Kincaid Pit (Inactive)
Owner: Van Wagner Outdoor
Operator: Bill Crabtree
Telephone #: (818) 508–8880

16 Miller Brewery Calmat Relaince I
17 Miller Brewery Kincaid Plant
Owner: Miller Brewery Company (Inactive)
Telephone #: (626) 969–6811

APPENDIX 4-A

LOS ANGELES COUNTY SOLID WASTE MANAGEMENT COMMITTEE / INTEGRATED WASTE MANAGEMENT TASK FORCE'S REPORT (DATED MARCH 28, 1991) TO THE CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD - ON THE REMAINING PERMITTED DISPOSAL CAPACITY OF SOLID WASTE FACILITIES IN LOS ANGELES COUNTY

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

THOMAS A. TIDEMANSON
CHAIRMAN

March 28, 1991 WM-2

Mr. George Larson, Chief Executive O
California Integrated Waste Manageme
1020 Ninth Street, Suite 300
Sacramento, CA 95814

Dear Mr. Larson:

REMAINING PERMITTED DISPOSAL CAPACIT
SOLID WASTE FACILITIES IN
LOS ANGELES COUNTY

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

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

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

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

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

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

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

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

Very truly yours,

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

HA:mc2/GL

Enc.

REMAINING PERMITTED COMBINED CAPACITY OF EXITSING SOLID WASTE FACILITIES IN LOS ANGELES COUNTY

Class III Landfill	Solid Waste Facility Permit	Facility Address	Opera-tion Days/ week	Jan. 1991 SWFP Daily Capacity (tons)	LUP Daily Capacity (tons)	1990 Average Daily Tonnage 6 days/wk	Addt'l Daily Tonnage That Can Be Handled	Quantity of Municipal Solid Waste Disposed million tons/ Year 1990	Projected remaining permitted capacity		Comments
									millions tons	million cubic yards	
Antelope Valley	19-AA-0009	1200 West City Ranch Road Palmdale, CA 93550	7	350	----	400	0	0.125	0.925	2.6	Approx. date of closure 1996
Azusa Land Reclamation	19-AA-0013	1201 Gladstone Avenue Azusa, CA 91702	6	6,500	6,500	2,756	0	0.86	0	0	1/91 Appelate Court[c] rescinded permit
BKK	19-AA-0001	2210 South Azusa Avenue West Covina, CA 91790	6	12000[a]	----	8,744	1600[d]	3.04	15.94	23.6	Date of closure 11/30/95
Bradley West	19-AA-0008	9227 Tujunga Avenue Sun Valley, CA 91352	6	7,000	9,500	1,923	1577	0.6	11.8	19.7	LUP expires 12/29/93
Brand Park	19-AA-0006	1601 West Mountain Street Glendale, CA 91207	5	104	----	48	0[e]	0.015	0.306	0.875	Private use only
Burbank	19-AA-0040	1600 Lockhead View Drive Burbank, CA 91510	5	240	----	196	44	0.061	11.44	22	Limited to the City's use only
Calabasas	19-AA-0056	26919 Ventura Freeway Agoura, CA 91301	6	3,500	----	2,724	776	0.85	15.155	21.6	Limited to the Calabasas Watershed
Chiquita Canyon	19-AA-0052	29201 Henry Mayo Drive Newhall, CA 91322	7	5,000	----	1,763	1237	0.55	1.76	2.2	LUP expires 11/24/97
Lancaster	19-AA-0050	600 East Avenue F Lancaster, CA 93534	6	450	----	295	5	0.092	0.15	0.5	LUP expires 12/95
Lopez Canyon	19-AA-0820	11950 Lopez Canyon Road Pacoima, CA 91331	5	4100[b]	4,000	3,109	691	0.97	4.2	7	LUP expires 1/30/96 limited to City of Los Angeles use only.
Pebbly Beach	19-AA-0041	Santa Catalina Island Avalon, CA 90704	6	30	----	10	20	0.003	0.097	0.16	
Pitchess Honor Rancho	19-AA-0057	29300 The Old Road Saugus, CA 91350	5	23	----	17	6	0.0054	2.24	3.73	Approx. date of closure 1994. Private use only.
Puente Hills	19-AA-0053	2800 S. Workman Hill Rd. Whittier, CA 90607	6	12,000	13,200	11,858	1341	3.7	7.5	10.7	LUP limits to 72,000 tpw LUP expires 10/31/93. no waste from City of L.A.
San Clemente	19-AA-0063	San Clemente Island LA County, CA 92135	5	1	----	1	0	0.002	0.024	0.034	LUP expires 10/31/91
Scholl Canyon	19-AA-0012	7721 North Figueroa St. Los Angeles, CA 90041	6	2,400	----	3,379	1221	0.88	13.32	19	Limited to the Scholl Cyn. watershed only
Spadra	19-AA-0015	4125 West Valley Blvd Walnut, CA 91769	6	3,000	----	2,724	276	0.85	6.93	9.93	LUP limits to 18,000 tpw reduces to 1.5000 tpw 7/1/95, no City of L.A. waste accepted
Sunshine Canyon (North Valley)	19-AR-0002	14747 San Fernando Road Los Angeles, CA 91342	6	7,000	6,000	2,141	2659	0.98	0.4	1.64	LUP expires 92691
Two Harbors	19-AA-0062	Two Harbors Avalon, CA	5	3.5	----	3.5	0	0.000086	0.0073	0.0104	
Whittier (Savage Canyon)	19-AH-0001	13919 East Penn Street Whittier, CA 91350	6	350	----	353	0	0.11	0.39	10.6	Limited to the City of Whittier use only
Total				83950[f]		43,245	11862	13.49	96.65	156.08	

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

Notes: a Daily capacity established in 6/90. Notice and Order, as amended, by the City of West Covina
b Daily capacity established by ROSI and Courts.
c Ceased operation as a Class III landfill on 2/21/91.
d BKK can handle additional 2,4000 tpd if SWFP limit is revised.
e Operator has informed DPW that additional waste cannot be handled due to manpower and equipment limitation.
f Average daily tonnage, Monday through Friday

APPENDIX 5-A

PRELIMINARY SITING ASSESSMENT CONVERSION TECHNOLOGIES IN LOS ANGELES COUNTY

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

GAIL FARBER, Director

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
http://dpw.lacounty.gov

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

October 20, 2010

IN REPLY PLEASE EP-4
REFER TO FILE: A3454i

TO: Each Supervisor

FROM: Gail Farber
Director of Public Works

BOARD MOTION OF APRIL 20, 2010, ITEM NO. 44
CONVERSION TECHNOLOGIES IN LOS ANGELES COUNTY
PRELIMINARY SITING ASSESSMENT

On April 20, 2010, your Board unanimously approved three Memorandums of Understanding for three conversion technology demonstration projects and awarded a contract for consultant services for Phase III and Phase IV of the Southern California Conversion Technology Demonstration Project for the purpose of developing solid waste alternatives to landfills within Los Angeles.

At that time, your Board also instructed the Director of Public Works, in coordination with appropriate stakeholders, to assess the feasibility of developing a conversion technology facility at one or more County landfills; to identify other potentially suitable sites within Los Angeles County; and to report back to the Board within six months. The attached preliminary siting assessment is in response to this request.

The Board's action on April 20, 2010, sparked an unprecedented level of interest in conversion technologies, with many jurisdictions contacting Public Works requesting more information. Over the last six months, Public Works has reached out to all 88 cities as well as solid waste facility owners and operators in Los Angeles County, soliciting expressions of interest in developing a conversion technology facility. Additionally, Public Works hosted a Conversion Technology Informational Workshop on September 23, 2010, which was attended by over 200 representatives from the cities, solid waste industry, utilities, and environmental community.

Eleven stakeholders representing cities, solid waste companies, and industrial real estate developers have submitted 16 sites for consideration as follows:

- Landfills (Calabasas, Lancaster, Pebbly Beach, and Scholl Canyon)
- Materials Recovery and Transfer Facilities (3)
- Other Sites (9)

The attached site assessment provides a brief description of each of these sites, including advantages and challenges associated with each site. This preliminary site assessment considered technical factors such as site acreage, existing infrastructure, utilities, proximity to power and gas transmission lines, proximity to sensitive ecological areas, zoning, and other factors.

This assessment is not intended to be comprehensive nor is it designed to rank the sites. It is intended to establish a basis for future, more detailed technical and environmental assessments. This will assist the County in advancing the development of an optimal number of conversion technology projects within the County, which will assist in meeting the long-term solid waste management needs of County residents and businesses while generating local renewable energy, and retaining jobs and economic resources within the County.

Based on this general assessment, all of the sites identified appear feasible for development of a conversion technology facility and merit further consideration. It should be noted that prior to development of a conversion technology facility at any of these sites, and following the necessary technical environmental assessments, sites must comply with the requirements of all applicable Federal, State, and local permitting agencies.

Public Works will continue to work with interested stakeholders to identify potential project locations within the County, evaluate various technologies with Public Works' established criteria, and provide technical assistance to potential project developers. To keep your Board regularly informed on these developments, Public Works will submit a status report to your Board every six months.

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Attach.

cc: County Counsel
Chief Executive Office
Department of Public Health
Department of Regional Planning
Sanitation Districts of Los Angeles County
Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force

LOS ANGELES COUNTY CONVERSION TECHNOLOGY PROJECT

Preliminary Siting Assessment

October 2010

A Report to the County of Los Angeles Board of Supervisors

1.0 INTRODUCTION

1.1 Background

For over a decade, the County of Los Angeles in coordination with the Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force has been recognized as a leader in researching and advancing the development of conversion technologies (CTs). CTs are non-combustion thermal, chemical, mechanical, and biological processes capable of converting post-recycled residual solid waste into useful products and chemicals, green fuels, and clean, renewable energy. These technologies provide an opportunity to reduce the amount of solid waste sent to landfills, create local green-collar jobs, and recover resources from our waste. Managing waste through CTs would reduce waste going to landfills and preserve landfill capacity in the County.

Consistent with the Los Angeles County Board of Supervisors' directives, the Department of Public Works (Public Works) has followed a deliberate multi-phased approach for evaluating and promoting the development of CTs. Part of this approach has been supporting Statewide legislation that would create a comprehensive regulatory framework for CT development in California consistent with your Board's direction to "support legislation which promotes the development of alternatives to landfills, such as CTs that protect public health and safety and the environment; establish a viable permitting process for these alternatives based on performance standards rather than prescriptive definitions; provide full diversion and greenhouse gas emission reduction credits for these alternatives under applicable State law; and provide that all energy produced by these CT facilities be designated as renewable energy." Several attempts have been made in California to pass legislation that would enable CTs to be developed in a streamlined fashion. This includes your Board's support for the County's sponsorship of AB 1939 (2000), five-signature letter of support for AB 1090 (2005), and other legislative efforts. To date, those attempts have not succeeded; however, the most recent legislative attempt, AB 222 (Ma/Adams), took the issue further than before with a wide base of supporters from all sectors in the State. Public Works will continue to work with the Chief Executive Office to pursue legislation that would benefit future CT development in the County.

Public Works' technology evaluation process began with Phase I, which included a preliminary evaluation, screening and ranking of CT companies and identification of material recovery facilities and transfer stations (MRF/TS) that could potentially host a CT facility. Phase II consisted of a detailed evaluation of selected technologies and MRF/TS sites. Following Phase II, Public Works issued a Request for Offers to the recommended companies and sites, which resulted in the establishment of three project development teams that connected a CT company with a local MRF operator and site owner.

On April 20, 2010, the Los Angeles County Board of Supervisors approved Memorandums of Understanding with these three project development teams and

initiated a consultant agreement with Alternative Resources, Inc. (ARI) to assist Public Works with implementing Phases III and IV of the CT effort. Phase III consists of providing technical assistance to the three project teams towards successful development. The purpose of the Phase III projects is to demonstrate the technical, economic, and environmental viability of such facilities in Southern California, and to establish pathways for permitting and financing commercial scale CT projects. These three demonstration projects are at various stages of development and include both thermal and biological conversion processes.

Phase IV focuses on facilitating the development of commercial-scale CT facilities in Los Angeles County for the purpose of providing alternatives to landfill disposal of post-recycled municipal solid waste (MSW). During Phase IV, the County will work with various key stakeholders, including cities solid waste facility owners and operators, and CT companies to encourage the development of mutually beneficial projects within the County. Similar to the demonstration projects in Phase III, the County would provide support for these projects in the form of technical support through the consultant contract with ARI, as well as assistance with permitting and grant and loan procurement, while maximizing private-sector investment.

Also on April 20, 2010, the Board unanimously adopted a motion instructing the Director of Public Works to:

a) *In coordination with appropriate stakeholders, including the County Sanitation Districts and other appropriate County departments, assess the feasibility of developing a CT facility at one or more County Landfills; and*

b) *Report back to the Board within six months, with its findings regarding the development of a CT facility at a County landfill, and identifying other potentially suitable sites within Los Angeles County.*

In accordance with the Board Motion, for the past six months, Public Works and ARI met with numerous stakeholders, including the County Sanitation Districts of Los Angeles County (Sanitation Districts), cities and solid waste facilities owners and operators to identify potential sites for development of CT facilities and discuss opportunities for collaboration. Public Works also made a presentation to the County's Regional Planning Commission regarding its Phases III and IV efforts, and will be returning for a follow-up presentation in October.

Based on these discussions, Public Works developed a preliminary list of potential sites within Los Angeles County that could host a CT facility. Development of this preliminary list included conducting outreach, attending meetings, developing evaluation criteria, and gathering information necessary to evaluate the sites. These meetings are summarized in Section 2 of this assessment.

This preliminary site assessment considered factors such as site acreage, existing infrastructure, utilities, proximity to power and gas transmission lines, proximity to sensitive ecological areas, zoning, and other factors. Based on this general

assessment, all of the sites identified appear feasible for development of a CT facility and merit further consideration.

It should be noted that prior to development of a CT facility at any of these sites, the site must undergo rigorous technical end environmental assessments as well as comply with the requirements of all applicable Federal, State, and local permitting agencies.

1.2 Purpose and Goals

The purpose of this assessment is to identify potential partners and suitable sites in Los Angeles County for development of commercial-scale CT facilities.

CTs have the potential to benefit the communities of Los Angeles County in many ways, including:

- Reducing the amount of solid waste sent to landfills
- Creating local, green-collar jobs
- Providing cost competitive solid waste management options after the Puente Hills Landfill closes
- Numerous potential environmental benefits, including:
    - Producing renewable energy and biofuels, which can displace fossil fuels
    - Net reduction of pollutants, including groundwater contamination, criteria air emissions, toxic air contaminants, and greenhouse gases
    - Reducing dependence on landfill disposal and exportation of waste to remote landfill disposal sites
    - Recovering additional recyclables and other valuable products from the waste stream that would otherwise be disposed

The County envisions one or more commercial CT facilities, ranging in size, being developed throughout the County as a means to provide long-term solid waste management capacity, to reduce dependence on landfills, and to stabilize waste disposal rates. Such facilities would process primarily post-recycled MSW, but could potentially process other materials such as food and yard waste, biosolids, non-recycled construction and demolition (C&D) materials, and other non-hazardous waste streams.

This effort reinforces the County's long-term strategy to diversify our solid waste management options and ensure a minimum of 15 years of capacity for the solid waste that is generated within the County. This includes continuing to enhance and expand our recycling and waste reduction programs; expansion of solid waste management infrastructure; and development of CTs.

2.0 METHODOLOGY

Public Works met with the Sanitation Districts, interested cities, communities, companies in the waste management sector, solid waste facility owners and operators, and industrial real estate developers to develop this list of preliminary sites. This report represents a first-level evaluation of potential sites for a CT project by identifying advantages and challenges of each site. This preliminary evaluation is not intended to be exhaustive of all potential sites in the County, and did not rank the sites evaluated. Suitable sites, potentially including additional sites not yet identified in this report, will be evaluated in more detail and presented in the next stage of site assessment as part of Phase IV of the County's CT Project.

2.1 Process for Identification of Interested Parties

As described below, several methods were used to reach out to both public and private parties to determine interest to participate in the Phase IV program.

Cities with adopted Resolutions of Interest

Prior to the initiation of Phase IV, four cities proactively adopted City Council resolutions in support of developing a CT project:

- **Calabasas** - in January 2006, the City of Calabasas unanimously adopted a resolution supporting the County's efforts and requesting consideration of a CT facility at the Calabasas Landfill.

- **Glendale** - in October 2007, the City of Glendale unanimously adopted a resolution supporting the County's efforts to evaluate and promote CTs, to support enabling legislation, and to work with the County to ensure that the Scholl Canyon Landfill is considered for any future development of CT facilities.

  In addition, on April 20, 2010, the Glendale City Council unanimously approved an action item authorizing the city manager to assemble a project team to research, analyze, report, and recommend a waste conversion project for the City of Glendale. Glendale has issued a Request for Proposals for an environmental consultant to assist them in this endeavor.

- **Lancaster** - in June 2008, the City of Lancaster unanimously adopted a resolution supporting the County's efforts to evaluate and promote CTs, to support enabling legislation, and to work with the County to ensure Lancaster is considered for any future partnerships for the development of CT facilities.

- **Long Beach** - in July 2008, the City of Long Beach unanimously adopted a resolution in support of the County's efforts to evaluate and promote CTs, to support enabling legislation, and to work with the County to ensure Long Beach is considered for any future partnerships for the development of CT facilities.

Copies of the resolutions adopted by these cities are included in Attachment 1**.**

Letters sent to all Cities, MRFs/TSs, and Landfills to solicit additional interest

In an effort to reach beyond those cities and waste industry companies that were already familiar with the County's CT efforts, Public Works sent a letter to the city managers and recycling coordinators in all 88 cities, as well as solid waste facility owners and operators including MRFs/TSs and landfills in Los Angeles County. See Attachment 2 for a copy of the letter that was distributed to all 88 cities and solid waste facilities in Los Angeles County, describing the County's efforts to promote CT development and soliciting expressions of interest.

This letter described the County efforts to promote CT development and solicited expressions of interest. Public Works developed and distributed an evaluation checklist, so that interested parties could easily identify and submit a site for consideration in this preliminary siting assessment.

Cities that have expressed interest subsequent to Board action

Since the Board's action on April 20, 2010, additional cities have expressed interest in coordinating with the County to evaluate the benefits of a CT facility. These cities contacted Public Works requesting meetings and/or suggesting possible sites. In some cases, the County team reached out to jurisdictions that it knew were involved already or interested in CT projects. At this time, cities and other public jurisdictions expressing interest include:

- Avalon
- Beverly Hills
- Carson
- Los Angeles
- Pico Rivera
- Santa Clarita
- Torrance
- Vernon

On October 5, 2010, the Vernon City Council approved a resolution authorizing the City to submit a letter of interest to the County to participate in the County's CT *Program. Please see Attachment 3.*

Private Interest

In addition to public jurisdictions, several private companies that have been involved in the solid waste and CT industry in California have also come forward at this time, expressing interest and/or offering potential sites. These include:

- BLT Enterprises (BLT)
- Calmet Services (PRR)
- Green City Development, Inc.
- Mustang Power (The Dewey Group)
- Waste Resources Recovery (WRR)

County Sponsored Workshop on September 23, 2010

To achieve maximum participation and provide the broadest opportunities for jurisdictions and private companies to participate in Phase IV efforts, the County conducted a CT workshop that was attended by approximately 200 individuals (either in person or via Webinar). At the workshop, the County explained the purpose and goals of the project, summarized progress to date for Phases I, II, III, and IV, and invited the participation of attendees. Representatives of the companies for the demonstration projects for Phase III gave brief presentations, as did several project proponents for Phase IV.

As a result of this workshop, it is anticipated that additional potential partners and sites not currently identified in this report will be considered.

2.2 Summary of Meetings with Cities, MRFs/TSs, and Landfills

Public Works has held numerous meetings with public jurisdictions and companies that have expressed interest to date. As a key stakeholder in this endeavor, Public Works met several times with the Sanitation Districts to discuss options for publicly-owned landfills, which the Sanitation Districts owns and/or operates within the County. Details of these sites are included in Section 3 of this Assessment.

Overall, the meetings were very constructive with the parties showing a willingness to work together for mutual benefit. The public jurisdictions and private companies were generally receptive to the possibility of hosting or contributing waste to a CT facility and enthusiastic about the potential of a CT to offer an alternative to landfilling. Many jurisdictions expressed the desire to develop additional options for managing their residual waste with the pending closure of the Puente Hills Landfill and the uncertainty and higher cost for waste management in the future. CT projects were also viewed as possible revenue generating facilities for those cities considering hosting regional facilities, and a means to stabilize costs in the future.

In addition to the meetings that have been held to date, several parties expressed interest but were unable to accommodate a meeting prior to the issuance of this report. These potential stakeholders include the cities of Compton, Culver City, Inglewood, Los Angeles, Santa Clarita, and Torrance, and as well as BLT Enterprises and Pacific

Coast Waste & Recycling, LLC, local solid waste companies who have a strong interest in CT development.

Public Works will continue to meet with these and other interested parties as it moves forward in the evaluation of potential sites as part of Phase IV.

3.0 SITE EVALUATION

This section of the report identifies potential sites and presents the results of the preliminary site review to determine suitable sites.

3.1 Potential Sites

Three figures are attached in the enclosures that identify sites within the County for potential project development. Figure 1 shows all areas within the County that are zoned for general industrial, heavy industrial, light industrial, miscellaneous (i.e. landfills, quarry zones), or for utility uses. Figures 2 and 3 identify all active landfills and MRF/TS facilities, respectively, that are located within Los Angeles County. Most closed landfill sites have been converted into other uses such as open space, parks or golf courses, and are also surrounded by other potentially incompatible uses, including residential development. As a result, closed landfill sites were generally not included in this preliminary siting assessment.

Figure 4 identifies a total of 16 potential CT sites that were specifically identified and brought forward by 11 stakeholders. Further discussion is needed with the site owners and operators in order to determine their level of interest and whether or a not a project at any of these sites would be mutually beneficial and financially viable.

This preliminary siting assessment will be included as an enclosure to the State-mandated Countywide Siting Element that is currently being revised. The Siting Element must demonstrate that there is a countywide or region-wide minimum of 15 years of combined permitted disposal capacity through existing or planned solid waste disposal and transformation facilities or through additional strategies. Furthermore, all facilities that require a Solid Waste Disposal Facility Permit must be identified in the Siting Element and meet the facility siting criteria established in the Siting Element. Due to current regulatory uncertainty, it is still unclear whether or not certain CT facilities will require a Solid Waste Disposal Facility Permit. As such, Public Works is proactively including this preliminary list of sites in the Siting Element to fulfill that requirement.

3.2 Overview Description of Each Site

In this section, basic information regarding each of the potential sites provided to Public Works by each of the ten stakeholders is presented below. Public Works will continue to meet with these and other interested parties as it moves forward in the evaluation of potential sites as part of Phase IV.

Stakeholder: City of Avalon

The site identified is on the small operating landfill remotely located on the western tip of Catalina Island. It serves primarily the town of Avalon, where the vast majority of the island population lives and where most tourism occurs. The landfill is owned by the City of Avalon, but is located in unincorporated Los Angeles County. It is operated by

Seagull Sanitation under contract to the City of Avalon. The current zoning (landfill) and the surrounding land use (vacant, rugged terrain, and the wastewater treatment plant) are compatible with a CT project.

Stakeholder: City of Calabasas

The City of Calabasas has identified the Calabasas Landfill as a potential site for a CT project. The facility is owned by Los Angeles County and operated by the Sanitation Districts. In 2006, the City of Calabasas adopted a resolution of support for the County's CT efforts and specifically requested consideration of a CT facility at the Calabasas Landfill.

Public Works has met with the Sanitation Districts and reviewed potential sites on the landfill property. Advantages of this site include the fact that it is an operating landfill, its use is supported as a site by the City of Calabasas and the Sanitation Districts, access off the freeway is excellent and there could be synergies with the existing landfill gas and energy recovery system. Challenges include the limited space within the property boundary, most of which is mountainous terrain; and the location of the landfill within a National Recreation Area. Current Federal regulations do not allow new waste disposal sites to be located in a national park. Due to the current regulatory uncertainty whether a CT facility is considered a disposal facility, this may require changes to Federal regulations and Federal permits as well as State and local approvals. In addition, the landfill historically received about 1,800 tons per day (tpd), but now receives about 800 tpd due to the recession and major waste haulers shipping their waste to their own landfills. Additional tonnage would likely be necessary to allow both the landfill and a CT facility to be financially viable.

Stakeholder: Calmet Services

Calmet Services, a solid waste hauling company in Los Angeles County, is in the preliminary stages of considering a CT facility that would be collocated at their MRF/TS in Paramount. The CT project could take advantage of the existing infrastructure at MRF/TS, owned and operated by Calmet Services. The site is zoned industrial and has good truck access and full utilities. The company is looking at various conversion technologies and has not yet settled on a preferred one. Calmet is the franchise hauler for several cities in the central Los Angeles basin.

This site has the advantage of being co-located with an existing MRF/TS facility and can thus make use of the existing infrastructure and processing capability. The site is of sufficient size, is zoned industrial, fully serviced with utilities, and is surrounded by other industrial uses and the Burlington Northern Santa Fe (BNSF) main line. The site also has very good truck access.

Stakeholder: City of Carson

Four sites were proposed by representatives from the City of Carson's Planning and Public Works Departments in recent meetings. Two sites are within refinery complexes,

and are industrially-zoned and currently undeveloped. Additional discussion will need to take place between the City of Carson and the property owners to determine whether a project would be feasible and mutually beneficial. Another potential advantage of locating a CT facility on these sites is the potential for these refineries to use the products from a CT facility, such as biogas, syngas, heat, or hydrogen.

The third site is a 14-acre corporate yard owned by the City and currently utilized for City public works operations. The City is planning to relocate their corporate yard, which would free up this land. This is an advantageous site due to its industrial zoning, access to rail and utilities, and City ownership.

The fourth site proposed by the City is the Joint Water Pollution Control Plant (JWPCP) which is owned and operated by the Sanitation Districts in the City of Carson. There are possible synergies between the treatment plant and the CT project in that the latter can manufacture products useful to the former such as biogas, electricity, transportation fuel, and heat. The advantages of this site are that it is located within the treatment plant in a heavy industrial area with full utilities and good access. Additional discussions are needed with the Sanitation Districts to determine if a project would be feasible and mutually beneficial.

Stakeholder: City of Glendale

The City of Glendale is investigating the possibility of utilizing Scholl Canyon Landfill as a potential site for a CT project. This 500-acre landfill is owned by the City (90 percent) and the County (10 percent), and is operated by the Sanitation Districts under a Joint Powers Authority between the City and the County. The wasteshed for the landfill is restricted to the cities of Glendale, Pasadena, South Pasadena, La Canada/Flintridge, Sierra Madre, and San Marino. The City also collects all residential and most of the commercial accounts within Glendale.

At present rate of fill, the landfill has approximately 20 years of life, plus another 10-20 years with a planned expansion. Utilities are available, including a transmission line that runs across the site.

On April 20, 2010, the Glendale City Council unanimously approved an action item authorizing the city manager to assemble a project team to research, analyze, report, and recommend a waste conversion project for the City of Glendale. Glendale has issued a Request for Proposals for an environmental consultant to assist them in this endeavor.

The advantages of this site are that it is an active landfill with a full solid waste facility permit, and primarily owned by the City of Glendale who has shown very strong support for a CT project and is continuing to pursue development of a CT project. The site is well positioned in an urban area. Access is excellent and potential synergy exists with the exiting landfill gas treatment and pipeline transportation system. A potential challenge is the limited space within the property boundary, much of which is mountainous terrain.

Stakeholder: Green City Development, Inc.

Green City Development, Inc. is an industrial land developer who owns a 115-acre parcel within the City of Santa Clarita. The site was previously used for oil drilling, but is not currently in operation, and the owner is proposing to develop a MRF and CT facility on the site, among other uses. The site has available utilities and truck access. Advantages of this site are that it is owned by the proponent, and has sufficient space, utilities, truck access, proper zoning, and is identified as an energy generation site by the California Energy Commission.

Stakeholder: City of Lancaster

The City of Lancaster met with Public Works to discuss how CTs may align with their city's environmental objectives. In 2008, the City of Lancaster unanimously adopted a resolution supporting the County's efforts to evaluate and promote CTs, to support enabling legislation, and to work with the County to ensure Lancaster is considered for any future partnerships for the development of CT facilities.

Two potential sites were discussed, the Lancaster Landfill which is located in the unincorporated area near the City, and a solar power plant located within the City boundaries. Waste Management, Inc., the owner and operator of the Lancaster Landfill, has been investing in CT companies and looking to possibly build a project at or near the landfill. Public Works may pursue additional conversations with Waste Management, Inc., and the City of Lancaster to determine if a project is mutually beneficial.

Also close to the Lancaster Landfill is the new Sun Tower Power Sierra Generating Station. The 5 MW solar power plant is located on a 95-acre parcel of which it is leasing 50 acres. Advantages of the site include sufficient space, utilities, truck access, and proper zoning. This site will require more discussion with both the City and Sun Tower Power to determine if a project is mutually beneficial.

Stakeholder: City of Long Beach

In July 2008, the City of Long Beach unanimously adopted a resolution in support of the County's efforts to evaluate and promote conversion technologies, to support enabling legislation, and to work with the County to ensure Long Beach is considered for any future partnerships for the development of CT facilities.

Public Works, in recent meetings with the City of Long Beach, discussed the possibility of siting a CT facility within the Port of Long Beach or land owned by the Port. Given the industrial zoning, proximity to utilities, truck and rail access, opportunities may exist to develop a CT facility at one or more locations. Public Works will continue to discuss options with the City and Port of Long Beach to determine if a project would be feasible and mutually beneficial.

Stakeholder: Mustang Power

Mustang Power, a CT development company, is proposing a 10-20 acre portion of a 71-acre industrially zoned site that includes approximately 14 acres previously operated as a landfill. Mustang Power owns the site in the Sylmar area in partnership with an investor group. The site has available utilities and easy truck access to the 210 and 118 freeways. Advantages of this site are that it is owned by the proponent, and has sufficient space, utilities, truck access, proper zoning, does not conflict with residential areas, and is located in a County Unincorporated area.

Stakeholder: Valley Vista Services

Valley Vista Services along with Onsite Power are in the process of developing a CT project at Valley Vista's Grand Central Recycling & Transfer Station in the City of Industry. The technology utilized would be the UC Davis Anaerobic Digestion process. The entire site of roughly 25 acres houses the MRF/TS, collection truck yard, corporate headquarters, and fueling stations. The CT facility would receive approximately 125 tpd of food waste and 125 tpd of green waste in the first phase, with the possibility to expand eventually. The project would produce pipeline quality biomethane for injection into the Gas Company distribution system. The site is fully developed and surrounded by industrial uses. This site has the advantage of being co-located with an existing MRF/TS facility and can thus make use of the existing infrastructure and processing capability. The site is of sufficient size, is zoned industrial, fully serviced with utilities, and is surrounded by other industrial uses. The site also has very good truck access.

Stakeholder: Waste Recovery and Recycling (WRR)

Public Works met with Waste Recovery and Recycling (WRR), a solid waste hauler in Los Angeles County, who is interested in co-locating a CT facility at their MRF/TS in an unincorporated area near Gardena. This site has the advantage of being co-located with an existing MRF/TS facility and can thus make use of the existing infrastructure and processing capability. The site is of sufficient size, is zoned industrial, fully serviced with utilities, is surrounded by other industrial uses, and is located in a County Unincorporated area. The site also has very good truck access. WRR is focusing on a thermal CT process.

4.0 NEXT STEPS

The next step in the Phase IV process will include a detailed comparative evaluation of the sites that were identified in this preliminary assessment. This detailed analysis will include gathering additional information that was not available at the time of the preliminary screening assessment, assessing site aspects expanding beyond the screening criteria, and continuing discussions with prospective stakeholders.

In addition to siting efforts, Public Works will continue evaluation of viable technology vendors to participate in Phase IV efforts. The conversion technology industry has matured and expanded since Public Works last conducted technology evaluations as part of Phases I and II. As such, Public Works will review the qualifications of technology vendors interested in participating in a Phase IV project and the viability of site specific projects in light of the needs expressed by the Stakeholders. Public Works will continue to work with the stakeholders identified in this Assessment, as well as others, to determine their goals and objectives, to evaluate and select a viable technology and project configuration, and to facilitate the development of suitable facilities.

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LOS ANGELES COUNTY
CONVERSION TECHNOLOGY PROJECT

Preliminary Siting Assessment

ATTACHMENTS AND FIGURES

ATTACHMENT 1

CITY RESOLUTIONS
(Calabasas, Glendale, Lancaster, Long Beach)

RESOLUTION NO. 2006-997

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CALABASAS, CALIFORNIA, SUPPORTING THE SOLID WASTE CONVERSION TECHNOLOGY AND REQUESTING A FACILITY AT THE CALABASAS LANDFILL

WHEREAS, the 2003-2004 California Waste Composition Study indicates that approximately 40 million tons of waste is landfilled in California; and

WHEREAS, Zero Waste is a primary goal of the California Integrated Waste Management Board's strategic plan; and

WHEREAS, Assembly Bill 2770 required the California Integrated Waste Management Board (CIWMB) to research and evaluate new and emerging non-combustion thermal, chemical, and biological technologies and to submit a report to the Legislature; and

WHEREAS, the Conversion Technology Report submitted to the Legislature supported the following major findings:

1. Conversion technologies are distinct from landfills and incineration, and can result in substantial environmental benefits for California, including the production of renewable energy, reduced dependency on fossil fuels, and reduction of greenhouse gases.
2. Conversion technologies can enhance landfill diversion efforts and can be complementary to the existing recycling infrastructure. The conversion technology facilities complement the local infrastructure and that they maintain or enhance the environmental benefits and economic sustainability of the Integrated Waste Management System.
3. Conversion technologies would be expected to meet federal, state, and local air emissions requirements. Local air districts in California are best equipped to review and condition conversion technology facilities.

WHEREAS, Assembly Bill 1090 reprioritizes California's waste management hierarchy to include conversion technologies and properly define these technologies based on sound science and their environmental impacts and benefits in relation to other solid waste management options.

WHEREAS, there are multiple benefits to the Conversion Technologies such as:

1. Waste materials are reduced in volume by up to 90%, significantly reducing the need for landfill space. In some cases the residual ash can be used in construction products such as concrete or brick production.

2. Synthetic gas or methane produced by these processes is used to generate electricity.
3. Co-locating these facilities with a comprehensive recycling and materials recovery operation assures that most inorganic materials and other recoverable items are removed for recycling or reuse prior to conversion processing. Advanced removal of inorganic items also reduces ash and other waste by-products requiring landfilling.
4. Significant reduction in physical space requirements compared to landfills.

WHEREAS, the Environmental Commission received testimony from the Los Angeles County engineering staff on the solid waste conversion technology during the public meeting of December 6, 2005 and made a recommendation to the City Council for approval of this resolution.

NOW THEREFORE, BE IT RESOLVED AS FOLLOWS:

1. With landfill space at a premium, and disposal rates estimated to increase, Los Angeles County must invest in landfill alternatives, such as conversion technologies, that inhibit disposal rates, generate jobs, and utilize abundant biomass and organic waste material in an environmentally beneficial manner.

2. Waste recycling must be extended to establish a statewide recycling goal and local planning requirements, develop an extensive recycling and composting infrastructure, increase removal of hazardous materials from the waste stream, establish advanced disposal fees and other manufacturer responsibility measures in conserving natural resources and reducing our dependence on landfills.

3. In supporting efforts by the Alternative Technology Advisory Subcommittee, the Calabasas City Council strongly requests that a construction of conversion technology facility at the Calabasas Landfill be considered for any future planning of facilities within Los Angeles County.

PASSED AND APPROVED AND ADOPTED this _____ day of _____ 2006.

_____
Barry Groveman, Mayor

ATTEST:

_____
Gwen Peirce, Assistant City Clerk

APPROVED AS TO FORM:

_____
Michael Colantuono, City Attorney

Adopted
10-23-07
Weaver/Quintero
All Ayes

RESOLUTION NO. 07-188

A RESOLUTION OF THE COUNCIL OF THE CITY OF GLENDALE, CALIFORNIA, SUPPORTING THE DEVELOPMENT OF SOLID WASTE CONVERSION TECHNOLOGIES

WHEREAS, each year, over 40 million tons of waste are disposed in California; and

WHEREAS, the County of Los Angeles has evaluated conversion technologies, which are capable of converting post-recycled residual solid waste into marketable products, green fuels, and clean, renewable energy, and identified a number of viable technologies for Southern California; and

WHEREAS, there are significant. potential benefits for the City of Glendale from co-locating a conversion technology facility at a solid waste facility, such as:

1. Conversion technologies can result in substantial environmental benefits, including preserving land and resources, reducing dependency on fossil fuels, and reducing air and water pollution, including greenhouse gas emissions.
2. Conversion technologies can enhance landfill diversion efforts and can be complementary to the existing recycling infrastructure, thereby reducing the volume of materials disposed at landfills and maintaining long-term landfill capacity.
3. Conversion technologies can recover marketable products and generate green fuels and renewable electricity, thereby enhancing the economic viability of the integrated waste management system and locally producing renewable energy resources to meet local demand.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF GLENDALE,

SECTION 1. That the Council supports the County of Los Angeles' efforts to evaluate and promote development of conversion technologies that minimize landfill disposal, create "green" jobs, and utilize waste material in an environmentally beneficial manner.

SECTION 2. That City Public Works staff are authorized and directed to work with the County of Los Angeles to ensure that the Scholl Canyon Landfill is considered for any future development of conversion technology facilities.

8 D 1

SECTION 3. That the City's legislative advocates are authorized and directed to work, in concert with the County of Los Angeles, to support legislation that establishes a viable permitting process for conversion technologies based on performance standards rather than prescriptive definitions and provides full diversion credit for these technologies under the California Integrated Waste Management Act.

Adopted this 23rd day of October, 2007.

Mayor, City of Glendale

ATTEST:

City Clerk

APPROVED AS TO FORM

CITY ATTORNEY

DATE 10-17-07

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES)
CITY OF GLENDALE)

I, Ardashes Kassakhian, City Clerk of the City of Glendale, do hereby certify that the foregoing Resolution No. was duly adopted by the Council of the City of Glendale, California, at a regular meeting held on the 23rd day of October, 2007 and that the same was adopted by the following vote:

Ayes: Drayman, Quintero, Weaver, Yousefian, Najarian

Noes: None

Absent: None

Abstain: None

City Clerk

J:\FILES\DOCFILES\FACTFIND\Reso support waste conversion tech.wpd

lancaster ca
it's positively clear.

July 3, 2008

Supervisor Yvonne B. Burke, Chair
Los Angeles County Board of Supervisors.
866 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, California 90012

Re: CITY OF LANCASTER LETTER OF INTEREST FOR THE DEVELOPMENT OF CONVERSION TECHNOLOGIES IN LOS ANGELES COUNTY

Dear Supervisor Burke:

On behalf of the City of Lancaster, I wish to express our interest and support for the development of conversion technologies in Los Angeles County, and the Antelope Valley in particular. As a leader in resource conservation and environmental stewardship, Lancaster advocates local implementation of conversion technologies encompassing a variety of processes that will convert municipal waste into renewable energy, bio-fuels, and will enhance landfill diversion efforts.

The City of Lancaster applauds and supports the County's efforts to evaluate and promote development of conversion technologies that minimize landfill disposal, create "green collar" jobs, and utilize waste material in an environmentally responsible and beneficial manner. We look forward to the continued opportunity to work with the County of Los Angeles to ensure that Lancaster is considered for any future partnerships for the development of a conversion technology facility.

A resolution of the City Council adopting the development of conversion technologies in the City of Lancaster is attached. If you have any questions, please contact Mr. Peter Zorba at (661)723-6234 or at pzorba@cityoflancasterca.org.

Sincerely,

R. Rex Parris
Mayor

RRP:PZ:vp

Attachment: Resolution No. 08-49

cc: Michael D. Antonovich, Los Angeles County Supervisor, 5th District
Mark Bozigian, City Manager, City of Lancaster
Randy Williams, Public Works Director, City of Lancaster
Peter Zorba, Environmental Engineer, City of Lancaster
Coby Skye, Alternative Technology Advisory Subcommittee, Los Angeles County Department of Public Works, Environmental Programs Division

RESOLUTION NO. 08-49

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LANCASTER, CALIFORNIA, ADOPTING THE DEVELOPMENT OF CONVERSION TECHNOLOGIES IN THE CITY OF LANCASTER

WHEREAS, each year, over 40 million tons of waste are disposed in California; and

WHEREAS, the County of Los Angeles has evaluated conversion technologies, which are capable of converting post-recycled residual solid waste into marketable products, green fuels, and clean, renewable energy, and identified a number of viable technologies for Southern California; and

WHEREAS, there are significant potential benefits for the City of Lancaster from hosting a conversion technology facility, such as:

1. Conversion technologies can result in substantial environmental benefits, including preserving land and resources, reducing dependency on fossil fuels, and reducing air and water pollution, including greenhouse gas emissions.
2. Conversion technologies can enhance landfill diversion efforts and can be complementary to the existing recycling infrastructure, thereby reducing the volume of materials disposed at landfills and maintaining long-term landfill capacity.
3. Conversion technologies can recover marketable products and generate green fuels and renewable electricity, thereby enhancing the economic viability of the integrated waste management system and locally producing renewable energy and fuel resources to meet local demand.

NOW, THEREFORE, BE IT RESOLVED AND ORDERED BY THE CITY COUNCIL OF THE CITY OF LANCASTER, STATE OF CALIFORNIA, THAT:

Section 1. The Council supports the County of Los Angeles' efforts to evaluate and promote development of conversion technologies that minimize landfill disposal, create "green collar" jobs, and utilize waste material in an environmentally beneficial manner.

Section 2. City Public Works staff are authorized and directed to work with the County of Los Angeles to ensure that the City of Lancaster is considered for any future partnerships for the development of conversion technology facilities.

Section 3. The City's legislative advocates are authorized and directed to work, in concert with the County of Los Angeles, to support legislation that establishes a viable permitting process for conversion technologies based on performance standards rather than prescriptive definitions, and provides full diversion credit for these technologies under the California Integrated Waste Management Act.

PASSED, APPROVED and ADOPTED this 24th day of June, 2008, by the following vote:

AYES: Council Members: Mann, Marquez, Sileo, Vice Mayor Smith, Mayor Parris

NOES: None

ABSTAIN: None

ABSENT: None

ATTEST:

Geri K Bryan

GERI K. BRYAN, CMC
City Clerk
City of Lancaster

APPROVED:

R. REX PARRIS
Mayor
City of Lancaster

STATE OF CALIFORNIA }
COUNTY OF LOS ANGELES } ss
CITY OF LANCASTER }

CERTIFICATION OF RESOLUTION
CITY COUNCIL

I, Shirley Mahoney, Assistant City Clerk City of Lancaster, California, do hereby certify that this is a true and correct copy of the original Resolution No. 08-49, for which the original is on file in my office.

WITNESS MY HAND AND THE SEAL OF THE CITY OF LANCASTER, on this 26th day of June, 2008.

(seal)

Shirley Mahoney

City of Long Beach

Legislative File Number 08-0670 (version 1)

Recommendation to respectfully request City Council support the County of Los Angeles' efforts to evaluate and promote development of next generation conversion technologies that minimize landfill disposal, create "green collar" jobs, and utilize waste material in an environmentally beneficial manner.

Request that City Manager work with the County of Los Angeles to ensure that Long Beach is considered for any future partnerships for the development of conversion technology facilities.

Request City's legislative advocates work with the County of Los Angeles to support legislation that establishes a viable permitting process for conversion technologies that protect public health, safety and the environment, and provides full diversion credit for these technologies under the California Integrated Waste Management Act.

The City of Long Beach is among the nation's leaders in waste diversion due to the thoughtful planning and investment by city leaders and the Environmental Services Bureau in the Southeast Resource Recovery Facility (SERRF), which began commercial operation in 1988. According to City documents, SERRF is a publicly owned solid waste management facility that uses mass burn technology to reduce the volume of solid waste by about 80% while recovering electrical energy. The facility is owned by a separate authority created by a joint powers agreement between the Sanitation Districts of Los Angeles County and the City of Long Beach, but is operated by a private company under contract. Residential and commercial solid waste from Long Beach and surrounding contracting communities is combusted in high temperature boilers to produce steam, which in turn is used to run a turbine-generator creating 36 megawatts of electricity. The SERRF site generates enough power each year to supply 40,000 residential homes with electricity and has reduced solid waste from entering landfills by over four million cubic yards. In addition, the SERRF site has allowed the City to keep the cost for waste management significantly below average, passing the savings on to our residents in their monthly bills. Each month, an average 825 tons of metal are recycled rather than sent to a landfill. As a public service and at the request of law enforcement agencies within California, SERRF began destroying narcotics and drug related paraphernalia in 1992. The program has been a tremendous success. SERRF has destroyed an average of 17,000 pounds of narcotics each month. This commitment by the City of Long Beach to assist in the removal of illegal narcotics from our cities' streets has saved law enforcement agencies hundreds of staff hours and thousands of dollars in alternative disposal costs.

The County of Los Angeles has evaluated next generation conversion technologies, which

are capable of converting post-recycled residual solid waste into marketable products, green fuels, and clean, renewable energy, and identified a number of viable technologies for Southern California. This next generation thermal conversion technology differs from our current SERRF technology in that it eliminates the residue combustion ash, which is currently treated and sent to an authorized landfill to be used as road base material. This difference is significant, since the only local landfill permitted to receive the ash is Puente Hills and it is scheduled to close in 2013.

Our existing SERRF site provides a valuable service to the residents of our city, pushing our diversion rate to 69% and converting our waste to electricity. However, next generation conversion technologies can further enhance our efforts to become our own "wasteshed", Conversion technologies may also provide us with the electricity necessary to support increased demand from cold-ironing in the harbor and Port. Just as our predecessors pursued technologies reducing the economic and environmental impacts of sending waste to local landfills, it makes sense that we explore opportunities to increase our conversion rate, better serve our residents, and further diminish our footprint on the environment.

None.

None.

Approve recommendation.

Suja Lowenthal
Councilmember, Second District

ATTACHMENT 2

LETTER TO CITIES

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
http://dpw.lacounty.gov

GAIL FARBER, Director

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

IN REPLY PLEASE
REFER TO FILE: EP-4

August 18, 2010

NAME
TITLE
ADDRESS
CITY, STATE, ZIP

Dear NAME:

INVITATION TO PARTICIPATE IN EFFORTS TO DEVELOP CONVERSION TECHNOLOGY FACILITIES IN LOS ANGELES COUNTY

The Los Angeles County Department of Public Works and the Integrated Waste Management Task Force continue to pursue the development of vital conversion technologies to help reduce our dependence on landfill disposal and provide new sources of renewable energy Enclosed please find a fact sheet with additional information regarding the program.

On behalf of both Public Works and the Task Force, I would like to invite you to join us in this critical effort by participating in an informational workshop, to be held on **Thursday, September 23, 2010,** from 8 a.m. to 1 p.m. at Public Works Headquarters, 900 South Fremont Avenue, Alhambra, California. Additional information regarding the workshop, including registration, is available online at www.SoCalConversion.org. Complimentary continental breakfast and lunch will be provided.

The workshop will outline three conversion technology demonstration projects recently approved by the Los Angeles County Board of Supervisors and provide the opportunity for you to learn about the County's conversion technology program and discuss regional conversion technology developments.

In addition, we would like to know if you have a site that may be suitable for development of a conversion technology facility Should you have interest in participating, we urge you to fill out and return the checklist as soon as possible so that your city can be properly represented in the report to the Los Angeles County Board of

Supervisors in October Expressing interest by filling out the checklist does not commit you to the project. It is a first step in evaluating if a project would be mutually beneficial.

If you have any further questions, or would like to meet to discuss the conversion technology program, please contact Mr Coby Skye of this office at (626) 458-5163, Monday through Thursday, 7 a.m. to 5.30 p.m., or by email at cskye@dpw.lacounty.gov.

Very truly yours,

GAIL FARBER
Director of Public Works

Pat Proano

PAT PROANO
Assistant Deputy Director
Environmental Programs Division

Enc.

TM:kp
P:\SEC\Convr Tech Mayor Mail Merge_8-17-10

cc: Each City Mayor in Los Angeles County
Each City Recycling Coordinator in Los Angeles County
Each Member of the Los Angeles County Integrated Waste Management Task Force

Checklist for Preliminary Site Information

Contact Person		**Site Information**	
Name:		Site Name:	
Affiliation:		Address/ Location:	
Address:			
Telephone:			
Email:			

Please provide as much information as possible

How big is the site (in acres)*?

Are there any known site characteristics that would reduce the acreage usable for project development, such as floodplain, wetlands, endangered/threatened species and/or critical habitat, underlying fill material (i.e. a landfill), etc.? Please describe and quantify, if possible.

**Minimum of 6-8 acres is recommended to support a commercial CT facility that is not co-located with an existing solid waste facility, larger sites (15-25 acres) provide flexibility to support larger-scale projects that may be more economically viable. Co-location with usable infrastructure can reduce size requirements.*

Please describe the current and planned future use of the site, e.g., undeveloped land; previously used and currently inactive; in current use for other purposes, etc.

Please describe current use of the properties adjacent to the subject site

Please identify existing infrastructure on the site that could be usable for a project, such as roads, weigh scales, receiving and storage buildings, recycling equipment, etc., (e.g., as may be affiliated with an existing waste management facility).

Please identify the utilities that are available at the site, such as water, reclaimed water, sewer, gas, electricity, and telephone.

What is the location of the nearest gas transmission main, electrical transmission line (i.e., 13.8 kV or greater), and/or substation for potential interconnection for sale of pipeline quality gas and/or electricity?
What is the zoning of the site (e.g., light, medium or heavy industrial, etc.)?
Does the site include a permitted Solid Waste Facility (e.g. MRF, transfer station, landfill)? If the project is anticipated to be co-located with an existing solid waste management facility: What is the current permitting capacity of that facility (tons per day)? What is the average amount of waste received (tons per day)?
Is the site located within a Coastal Zone, designated as Williamson Act land, Sensitive Ecological Area, or otherwise in an area that could complicate permitting and project development efforts?
Is the site within an Environmental Justice Zone, or are there other environmental justice issues or concerns related to the site?
What other types and quantities of solid waste may be available for a project (e.g., green waste, construction & demolition debris, industrial waste, etc.)?
Please specify who is the owner of the site, and if applicable, the operator of any existing operations at the site:

Please return your completed evaluation form to:

Los Angeles County Department of Public Works
Environmental Programs Division
ATTN: Coby Skye, Project Manager
900 S. Fremont Ave, Annex 3rd Floor
Alhambra, CA 91803

OR by e-mail to
cskye@dpw.lacounty.gov

Background

Since 2004, Public Works in conjunction with the Los Angeles County Integrated Waste Management Task Force has been evaluating and pursuing the development of conversion technologies (CTs) to reduce our dependence on landfill disposal. Conversion technology facilities include biological, non-combustion thermal, mechanical, and/or chemical processes that convert solid waste to renewable energy (electricity and fuels) and other beneficial products, providing greater than 80 percent diversion from landfill disposal and reduced air emissions. Such technologies are often paired with pre-processing equipment that recovers additional recyclable material while also preparing the waste for conversion.

To date, the County has followed a deliberate multi-phased approach in evaluating and promoting the development of conversion technologies.

- Phase I included a preliminary evaluation, screening and ranking of CT companies, and identification of material recovery facilities and transfer stations (MRF/TS) that could potentially host a CT facility

- Phase II consisted of a detailed evaluation of selected technologies and MRF/TS sites, followed by a Request for Offers that was issued to recommended companies and sites.

- Phase III is currently underway and focuses on County support to construct three CT demonstration projects in Southern California with companies that responded to the County's Request for Offers. The purpose of these projects is to demonstrate the technical, economic, and environmental viability of such facilities in Southern California. These three demonstration projects are at various stages of development and include both thermal and biological conversion processes

- The County has recently initiated Phase IV activities, which focus on establishing larger, commercial-scale CT facilities in Los Angeles County for the purpose of providing alternatives to landfill disposal of post-recycled municipal solid waste (MSW) The County envisions one or more commercial CT facilities being developed in Los Angeles County as a means to provide long-term solid waste management capacity for post-recycled MSW residuals destined to landfills, to reduce our dependence on exporting waste to remote landfill sites outside of the County, and to stabilize waste disposal rates.

Benefits of Conversion Technologies

If your City participates as a host community and/or partner in the development of a commercial CT facility, the possible advantages of such a project include:

- reduction in truck traffic due to onsite conversion of residual waste into energy
- extension of landfill life due to conversion of waste into energy
- potential for revenue and/or use of energy and other products from the CT project
- provision of a long-term, reliable, and cost-competitive means of solid waste management for your community's municipal solid waste
- if the facility is to be a regional facility, the potential for host community benefits
- potential for additional City revenue and/or use of energy and other products from the CT project (e.g electricity, transportation fuels, aggregate, compost, etc.)
- assistance from the County in applying for grants and other types of financial assistance and funding for the CT project
- assistance from the County in land use and environmental permitting
- assistance from the County in public relations and outreach activities

Next Steps

At the request of the Los Angeles County Board of Supervisors, Public Works is preparing a Siting Feasibility Study identifying potential conversion technology sites within Los Angeles County. This study will be presented to the Board of Supervisors in October 2010. In advance of this study, we will be hosting a special workshop on **Thursday, September 23, 2010,** beginning at 8 a.m. here at 900 South Fremont Avenue, Alhambra, California 91803. The purpose of this workshop is to provide more information about the County's conversion technology project and answer questions from interested parties regarding the potential benefits of participation.

The County would welcome the opportunity to identify your City as an interested participant, and to meet with you to review your goals and objectives and to obtain information on your potential site. Expressing interest does not commit you to participate, it is the first step in evaluating if a project would be mutually beneficial.

If you are interested in being considered and have one or more sites in mind that may be suitable for such a project, please fill out the enclosed checklist for preliminary site information enclosed and return to Mr. Coby Skye of this office. Mr. Skye can also be contacted at (626) 458-5163, Monday through Thursday, 7 a.m. to 5:30 p.m., or by e-mail at cskye@dpw.lacounty.gov. For More information regarding the County's conversion technology efforts, please visit www.SoCalConversion.org.

ATTACHMENT 3

CITY OF VERNON RESOLUTION

RESOLUTION NO. 2010-143

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF VERNON APPROVING AND AUTHORIZING THE CITY'S SUBMISSION OF A LETTER OF INTEREST TO PARTICIPATE IN THE LOS ANGELES COUNTY CONVERSION TECHNOLOGY PROGRAM

WHEREAS, the City of Vernon (the "City") is a municipal corporation and a chartered city of the State of California organized and existing under its Charter and the Constitution of the State of California; and

WHEREAS, since 2004, Los Angeles County has been evaluating and pursuing the development of solid waste conversion technologies to reduce dependence on landfill disposal; and

WHEREAS, Los Angeles County, through its Department of Public Works and its Integrated Waste Management Task Force, has extended an invitation to the City to participate in efforts to develop solid waste conversion technology facilities in Los Angeles County (the "Program"); and

WHEREAS, Los Angeles County's invitation included a request that the City submit a non-binding preliminary site information checklist if the City was interested in locating a solid waste conversion technology facility in the City of Vernon; and

WHEREAS, by memorandum dated September 28, 2010, the Director of Health and Environmental Control has recommended the City's submission of a letter of interest to participate in the Program.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF VERNON AS FOLLOWS:

SECTION 1: The City Council of the City of Vernon hereby

finds and determines that the recitals contained hereinabove are true and correct.

SECTION 2: The City Council of the City of Vernon hereby approves and authorizes the City's submission to Los Angeles County of a non-binding letter indicating the City's interest in participating in the Program, including submission of a preliminary site information checklist (the "Letter of Interest").

SECTION 3: The City Council of the City of Vernon hereby authorizes the City Administrator, or his designee, to take whatever actions are deemed necessary or desirable for the purpose of implementing and carrying out the purposes of this Resolution and the actions herein approved or authorized, including without limitation, execution of the Letter of Interest.

SECTION 4: The City Clerk of the City of Vernon shall certify to the passage, approval and adoption of this resolution, and the City Clerk of the City of Vernon shall cause this resolution and the City Clerk's certification to be entered in the File of Resolutions of the Council of this City.

APPROVED AND ADOPTED this 4th day of October, 2010.

Hilario Gonzales

Name: Hilario Gonzales

Title: Mayor / ~~Mayor Pro-Tem~~

ATTEST:

Willard G. Yamaguchi, City Clerk

STATE OF CALIFORNIA)
) ss
COUNTY OF LOS ANGELES)

I, Willard G. Yamaguchi, City Clerk of the City of Vernon, do hereby certify that the foregoing Resolution, being Resolution No. 2010-143, was duly passed, approved and adopted by the City Council of the City of Vernon at a regular meeting of the City Council duly held on Monday, October 4, 2010, and thereafter was duly signed by the Mayor or Mayor Pro-Tem of the City of Vernon.

Executed this 5 day of October, 2010, at Vernon, California.

Willard G. Yamaguchi, City Clerk

(SEAL)

Figure 1

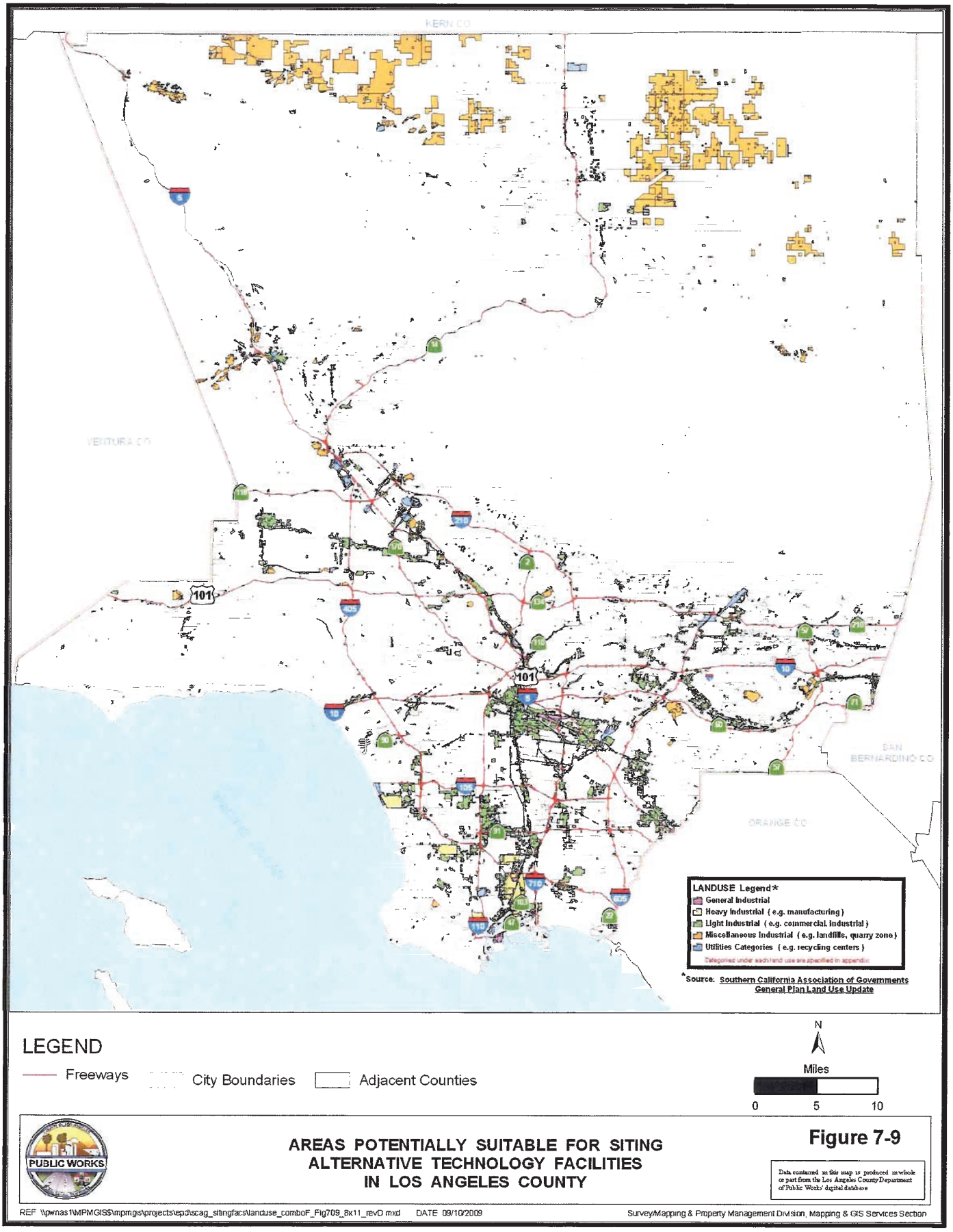

KERN CO
VENTURA CO
SAN BERNARDINO CO
ORANGE CO
101
LANDUSE Legend*
General Industrial
Heavy Industrial (e.g. manufacturing)
Light Industrial (e.g. commercial, industrial)
Miscellaneous Industrial (e.g. landfills, quarry zone)
Utilities Categories (e.g. recycling centers)
Categories under each land use are specified in appendix
*Source: Southern California Association of Governments General Plan Land Use Update
LEGEND
Freeways
City Boundaries
Adjacent Counties
N
Miles
0
5
10
PUBLIC WORKS
AREAS POTENTIALLY SUITABLE FOR SITING ALTERNATIVE TECHNOLOGY FACILITIES IN LOS ANGELES COUNTY
Figure 7-9
Data contained in this map is produced in whole or part from the Los Angeles County Department of Public Works' digital database
REF \\pwnas1\MPMGIS$\mpmgis\projects\epd\scag_sitingfacs\landuse_comboF_Fig709_8x11_revD.mxd
DATE 09/10/2009
Survey/Mapping & Property Management Division, Mapping & GIS Services Section

Figure 2

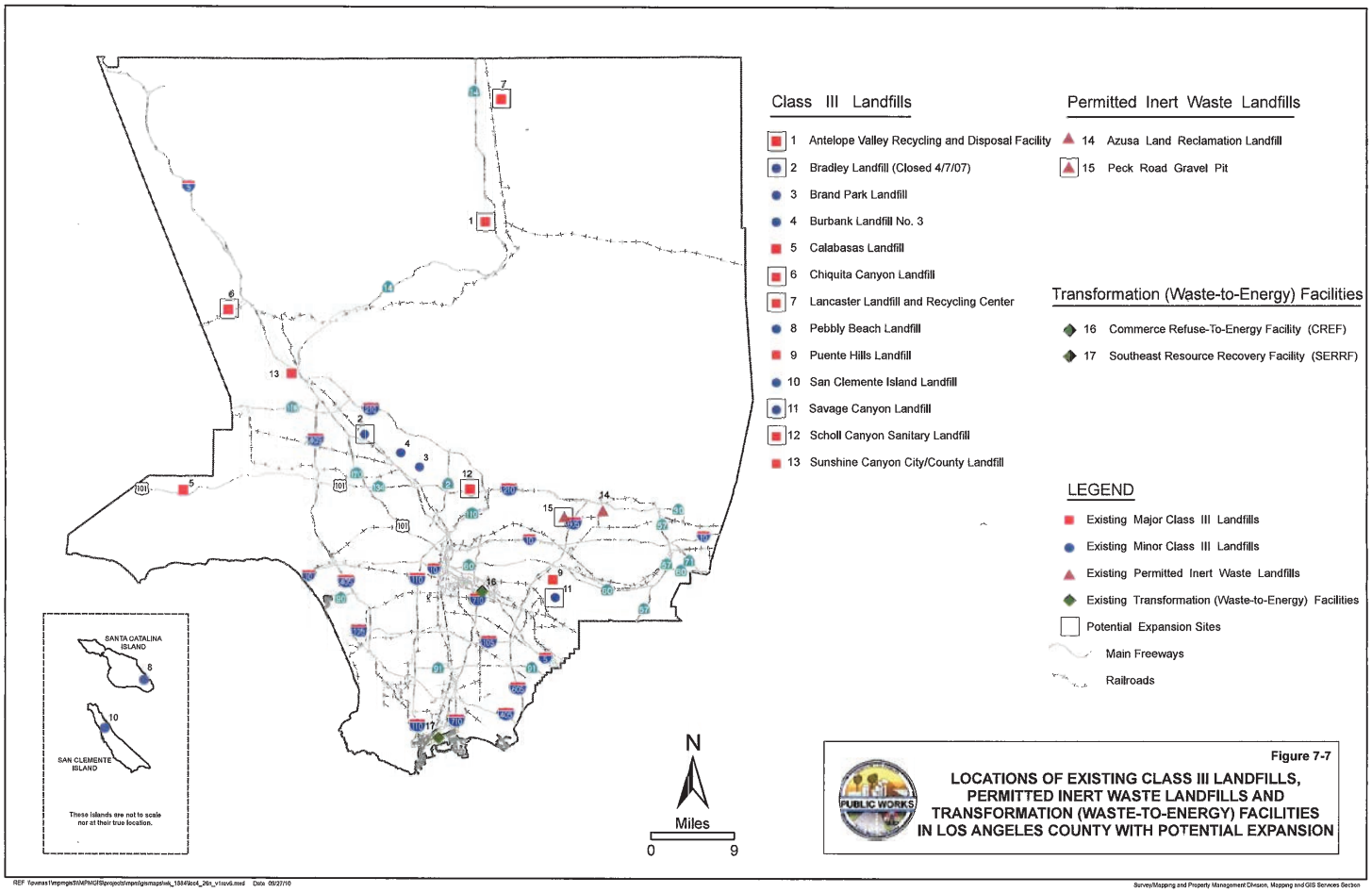
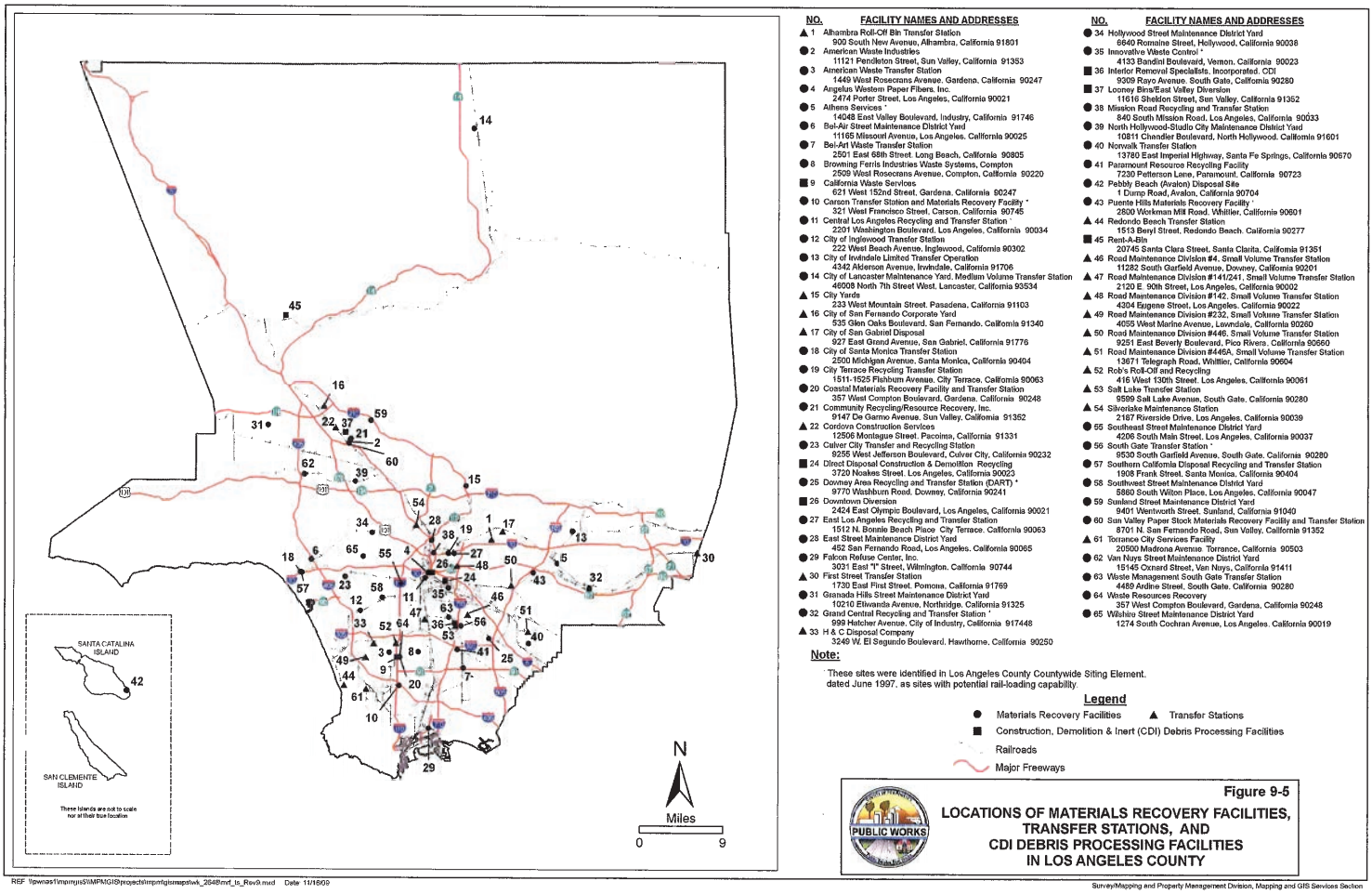

Class III Landfills
1 Antelope Valley Recycling and Disposal Facility
2 Bradley Landfill (Closed 4/7/07)
3 Brand Park Landfill
4 Burbank Landfill No. 3
5 Calabasas Landfill
6 Chiquita Canyon Landfill
7 Lancaster Landfill and Recycling Center
8 Pebbly Beach Landfill
9 Puente Hills Landfill
10 San Clemente Island Landfill
11 Savage Canyon Landfill
12 Scholl Canyon Sanitary Landfill
13 Sunshine Canyon City/County Landfill
Permitted Inert Waste Landfills
14 Azusa Land Reclamation Landfill
15 Peck Road Gravel Pit
Transformation (Waste-to-Energy) Facilities
16 Commerce Refuse-To-Energy Facility (CREF)
17 Southeast Resource Recovery Facility (SERRF)
LEGEND
Existing Major Class III Landfills
Existing Minor Class III Landfills
Existing Permitted Inert Waste Landfills
Existing Transformation (Waste-to-Energy) Facilities
Potential Expansion Sites
Main Freeways
Railroads
SANTA CATALINA ISLAND
SAN CLEMENTE ISLAND
These islands are not to scale nor at their true location.
N
Miles
0
9
Figure 7-7
LOCATIONS OF EXISTING CLASS III LANDFILLS, PERMITTED INERT WASTE LANDFILLS AND TRANSFORMATION (WASTE-TO-ENERGY) FACILITIES IN LOS ANGELES COUNTY WITH POTENTIAL EXPANSION
PUBLIC WORKS
Survey/Mapping and Property Management Division, Mapping and GIS Services Section

Figure 3



NO.	FACILITY NAMES AND ADDRESSES
▲ 1	Alhambra Roll-Off Bin Transfer Station 900 South New Avenue, Alhambra, California 91801
● 2	American Waste Industries 11121 Pendleton Street, Sun Valley, California 91353
● 3	American Waste Transfer Station 1449 West Rosecrans Avenue, Gardena, California 90247
● 4	Angelus Western Paper Fibers, Inc. 2474 Porter Street, Los Angeles, California 90021
● 5	Athens Services * 14048 East Valley Boulevard, Industry, California 91746
● 6	Bel-Air Street Maintenance District Yard 11165 Missouri Avenue, Los Angeles, California 90025
● 7	Bel-Art Waste Transfer Station 2501 East 68th Street, Long Beach, California 90805
● 8	Browning Ferris Industries Waste Systems, Compton 2509 West Rosecrans Avenue, Compton, California 90220
■ 9	California Waste Services 621 West 152nd Street, Gardena, California 90247
● 10	Carson Transfer Station and Materials Recovery Facility * 321 West Francisco Street, Carson, California 90745
● 11	Central Los Angeles Recycling and Transfer Station 2201 Washington Boulevard, Los Angeles, California 90034
● 12	City of Inglewood Transfer Station 222 West Beach Avenue, Inglewood, California 90302
● 13	City of Irwindale Limited Transfer Operation 4342 Alderson Avenue, Irwindale, California 91706
● 14	City of Lancaster Maintenance Yard, Medium Volume Transfer Station 45008 North 7th Street West, Lancaster, California 93534
▲ 15	City Yards 233 West Mountain Street, Pasadena, California 91103
▲ 16	City of San Fernando Corporate Yard 535 Glen Oaks Boulevard, San Fernando, California 91340
▲ 17	City of San Gabriel Disposal 927 East Grand Avenue, San Gabriel, California 91776
● 18	City of Santa Monica Transfer Station 2500 Michigan Avenue, Santa Monica, California 90404
● 19	City Terrace Recycling Transfer Station 1511-1525 Fishburn Avenue, City Terrace, California 90063
● 20	Coastal Materials Recovery Facility and Transfer Station 357 West Compton Boulevard, Gardena, California 90248
● 21	Community Recycling/Resource Recovery, Inc. 9147 De Garmo Avenue, Sun Valley, California 91352
▲ 22	Cordova Construction Services 12506 Montague Street, Pacoima, California 91331
● 23	Culver City Transfer and Recycling Station 9255 West Jefferson Boulevard, Culver City, California 90232
■ 24	Direct Disposal Construction & Demolition Recycling 3720 Noakes Street, Los Angeles, California 90023
● 25	Downey Area Recycling and Transfer Station (DART) * 9770 Washburn Road, Downey, California 90241
■ 26	Downtown Diversion 2424 East Olympic Boulevard, Los Angeles, California 90021
● 27	East Los Angeles Recycling and Transfer Station 1512 N. Bonnie Beach Place, City Terrace, California 90063
● 28	East Street Maintenance District Yard 452 San Fernando Road, Los Angeles, California 90065
● 29	Falcon Refuse Center, Inc. 3031 East "I" Street, Wilmington, California 90744
▲ 30	First Street Transfer Station 1730 East First Street, Pomona, California 91769
● 31	Granada Hills Street Maintenance District Yard 10210 Etiwanda Avenue, Northridge, California 91325
● 32	Grand Central Recycling and Transfer Station * 999 Hatcher Avenue, City of Industry, California 917448
▲ 33	H & C Disposal Company 3249 W. El Segundo Boulevard, Hawthorne, California 90250

NO.	FACILITY NAMES AND ADDRESSES
● 34	Hollywood Street Maintenance District Yard 6640 Romaine Street, Hollywood, California 90038
● 35	Innovative Waste Control * 4133 Bandini Boulevard, Vernon, California 90023
■ 36	Interior Removal Specialists, Incorporated, CDI 9309 Rayo Avenue, South Gate, California 90280
■ 37	Looney Bins/East Valley Diversion 11616 Sheldon Street, Sun Valley, California 91352
● 38	Mission Road Recycling and Transfer Station 840 South Mission Road, Los Angeles, California 90033
● 39	North Hollywood-Studio City Maintenance District Yard 10811 Chandler Boulevard, North Hollywood, California 91601
● 40	Norwalk Transfer Station 13780 East Imperial Highway, Santa Fe Springs, California 90670
● 41	Paramount Resource Recycling Facility 7230 Petterson Lane, Paramount, California 90723
● 42	Pebbly Beach (Avalon) Disposal Site 1 Dump Road, Avalon, California 90704
● 43	Puente Hills Materials Recovery Facility * 2800 Workman Mill Road, Whittier, California 90601
▲ 44	Redondo Beach Transfer Station 1513 Beryl Street, Redondo Beach, California 90277
■ 45	Rent-A-Bin 20745 Santa Clara Street, Santa Clarita, California 91351
▲ 46	Road Maintenance Division #4, Small Volume Transfer Station 11282 South Garfield Avenue, Downey, California 90201
▲ 47	Road Maintenance Division #141/241, Small Volume Transfer Station 2120 E. 90th Street, Los Angeles, California 90002
▲ 48	Road Maintenance Division #142, Small Volume Transfer Station 4304 Eugene Street, Los Angeles, California 90022
▲ 49	Road Maintenance Division #232, Small Volume Transfer Station 4055 West Marine Avenue, Lawndale, California 90260
▲ 50	Road Maintenance Division #446, Small Volume Transfer Station 9251 East Beverly Boulevard, Pico Rivera, California 90660
▲ 51	Road Maintenance Division #446A, Small Volume Transfer Station 13671 Telegraph Road, Whittier, California 90604
▲ 52	Rob's Roll-Off and Recycling 416 West 130th Street, Los Angeles, California 90061
▲ 53	Salt Lake Transfer Station 9599 Salt Lake Avenue, South Gate, California 90280
▲ 54	Silverlake Maintenance Station 2167 Riverside Drive, Los Angeles, California 90039
● 55	Southeast Street Maintenance District Yard 4206 South Main Street, Los Angeles, California 90037
● 56	South Gate Transfer Station * 9530 South Garfield Avenue, South Gate, California 90280
● 57	Southern California Disposal Recycling and Transfer Station 1908 Frank Street, Santa Monica, California 90404
● 58	Southwest Street Maintenance District Yard 5860 South Wilton Place, Los Angeles, California 90047
● 59	Sunland Street Maintenance District Yard 9401 Wentworth Street, Sunland, California 91040
● 60	Sun Valley Paper Stock Materials Recovery Facility and Transfer Station 8701 N. San Fernando Road, Sun Valley, California 91352
▲ 61	Torrance City Services Facility 20500 Madrona Avenue, Torrance, California 90503
● 62	Van Nuys Street Maintenance District Yard 15145 Oxnard Street, Van Nuys, California 91411
● 63	Waste Management South Gate Transfer Station 4489 Ardine Street, South Gate, California 90280
● 64	Waste Resources Recovery 357 West Compton Boulevard, Gardena, California 90248
● 65	Wilshire Street Maintenance District Yard 1274 South Cochran Avenue, Los Angeles, California 90019

Note:

* These sites were identified in Los Angeles County Countywide Siting Element, dated June 1997, as sites with potential rail-loading capability.

Legend

- ● Materials Recovery Facilities
- ▲ Transfer Stations
- ■ Construction, Demolition & Inert (CDI) Debris Processing Facilities
- Railroads
- Major Freeways

Figure 9-5

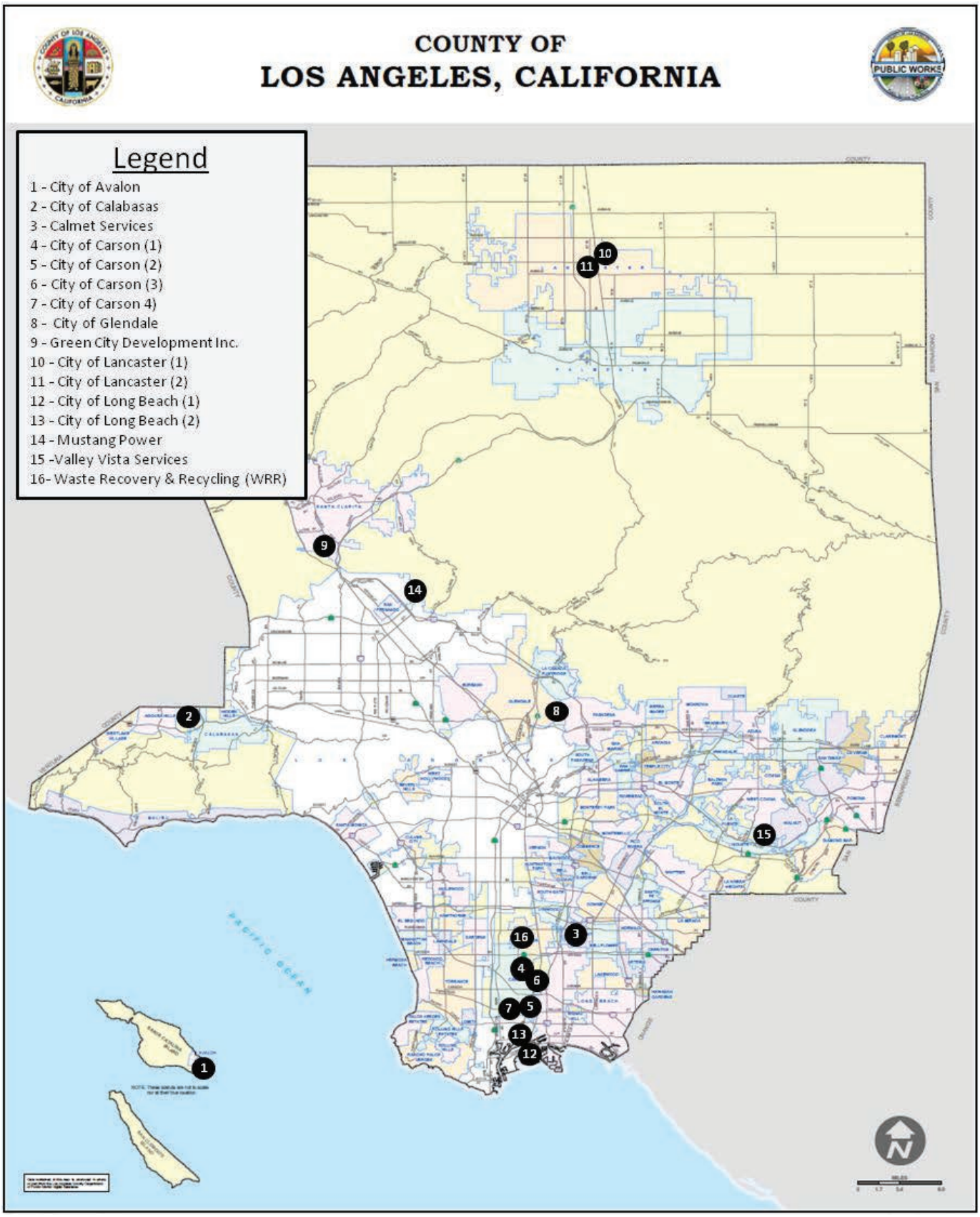
LOCATIONS OF MATERIALS RECOVERY FACILITIES, TRANSFER STATIONS, AND CDI DEBRIS PROCESSING FACILITIES IN LOS ANGELES COUNTY

REF: \\pwnas1\mpmjis5\IMPM\GIS\projects\mpmfig\maps\wk_2648\mrf_ts_Rev9.mxd Date: 11/16/09

Survey/Mapping and Property Management Division, Mapping and GIS Services Section

Figure 4

Location Map of Potential Sites



APPENDIX 5-B

RECOVERING ENERGY NATURAL RESOURCES AND ECONOMIC BENEFIT FROM WASTE FOR LA (RENEW LA) SYNOPSIS, SOLID WASTE INTEGRATED RESOURCES PLAN (SWIRP) EXECUTIVE SUMMARY AND WASTE MANAGEMENT HIERARCHY

By implementing SWIRP, the City can reduce greenhouse gas emissions by as much as 2.6 million metric tons, which is the equivalent of removing over 500,000 passenger vehicles from the road.[9]

Implementation of the new programs will also create approximately 4,000 new green jobs in the City, including jobs in refurbishing, recycling and processing, and remanufacturing.[10]

Why Does it Matter?

The implementation of SWIRP and its initiatives is vital to the effective management of discarded materials in the City of Los Angeles. By bringing together a diverse set of stakeholders in a truly collaborative process, SWIRP unites Los Angeles behind the goal of creating a greener, cleaner, and more sustainable place to live and work. The expansion of effective programs and the implementation of new programs will continue to drive the City in the right direction. Developing the critical infrastructure to manage discarded materials and residual waste will ensure Los Angeles remains at the forefront of sustainable materials management. As witnessed through the eyes of some of the youngest SWIRP participants, it is imperative to all Angelenos that the City moves forward with the plan.

"Our planet is under a lot of pressure—as the population of the world grows, more and more people are producing trash. If we don't recycle and we continue to use up Earth's non-renewable resources and waste energy,

Global Warming will affect the environment, plants, animals, and people. This will lead to the extinction of the human race, and more importantly, all life on Earth."

—Rebecca Snegg and Wendy Rodgers,
6th graders from West LA
SWIRP Citywide Conference, May 2008

Speaking at the Citywide Conference

www.zerowaste.lacity.org

Printed on Recycled Paper

As a covered entity under Title II of the American Disabilities Act, the City of Los Angeles does not discriminate on the basis of disability and, upon request, will provide reasonable accommodations to ensure equal access to its programs, services, and activities.

[9]Calculated based on US EPA Waste Assessment Model (February 2012 version) in metric tons of carbon dioxide equivalent. http://www.epa.gov/climatechange/waste/calculators/Warm_home.html (accessed October 1, 2013).

[10]Calculated based on Recycling-Based Job Potential for Los Angeles, Institute of Local Self-Reliance, March 2013.

Executive Summary

COUNTING DOWN TO ZERO WASTE

A Solid Waste Integrated Resources Plan

City of Los Angeles Bureau of Sanitation

Introduction

"The Solid Waste Integrated Resources Plan (SWIRP) - most commonly known as the City's Zero Waste Plan - lays out a long term plan through 2030 for the City's solid waste programs, policies and environmental infrastructure. Investment in such infrastructure will help achieve Mayor Garcetti's sustainability goals and will create jobs in the local economy."

—Enrique Zaldivar,
Director, Bureau of Sanitation

The City of Los Angeles (City) is at a crossroads with how it functions, between moving to a more sustainable future and maintaining an unsustainable status quo. The City has chosen to take the bold path of sustainability to ensure all residents can continue to thrive in healthy communities, while maintaining a strong economy and a clean environment. As part of this change, the City has embarked on a long-term strategy to increase recycling, reduce landfilling, and achieve Zero Waste.[1] City leaders have called on all residents and businesses in the City to join in this effort.

Stakeholders across the City responded to the call, joining together to formulate a plan to strive for Zero Waste. Neighborhood Council representatives, pastors and church leaders, university students, labor unions, recycling service providers, corporate managers, environmental groups, environmental justice organizations, elected officials, and other Angelenos came from around the City to join in small working groups and large community meetings to develop the vision for Zero Waste.

LA's Residential Collection Program

"Zero Waste should become second nature as part of the culture of the family, education system, and community."

—Jay Goldberg,
North Central Regional Working Group
Goals and Objectives Workshop,
September 2007

[1]The internationally peer-reviewed definition of "Zero Waste" was developed by the Zero Waste International Alliance, http://zwia.org/standards/zw-definition/ (accessed October 1, 2013).

ON THE ROAD TO ZERO WASTE
SOLID WASTE INTEGRATED RESOURCES PLAN

The **Solid Waste Integrated Resources Plan (SWIRP)** is the outcome of the collective community input, codifying the vision and identifying the policies, programs, and facilities needed for the City of Los Angeles on its path towards Zero Waste.

Background

The Bureau of Sanitation (LASAN) has been managing solid waste[2] since 1890 and collecting solid waste from single family residents since 1943. Since that time, the City's solid waste handling trends have evolved from the very early days when residents and businesses typically burned or buried trash in their backyards, to state-of-the art programs and facilities focusing on maximizing diversion from disposal.

These programs are managed by the LASAN Solid Resources Program which has responsibility for the collection, disposal, and recycling of over 1.5 million tons per year of discarded materials for the residents of the City.

The California Integrated Waste Management Act of 1989 (Assembly Bill 939, AB 939), as amended, established the statewide solid waste planning requirements for cities and counties in California, setting diversion goals of 25 percent diversion by 1995 and 50 percent diversion by 2000. Through the guidance of City leaders and LASAN, the City achieved 60 percent diversion in 2000 and has maintained consistently high rates of diversion, reaching a diversion rate of 72 percent in 2010 (the baseline for SWIRP) and 76 percent in 2011 (based on the most current available data).

Signing off on the Guiding Principles

In addition to the planning requirements under AB 939, the City regularly undertakes long-range planning efforts to address its solid waste infrastructure and program needs. SWIRP is the successor to these planning studies; it builds on their findings and research; and will be the master planning document for the City's solid waste programs through 2030.

The success of the City's programs lies with the environmental stewardship of its leaders. City leaders have issued several important directives related to solid waste management, including the following:

- In 2005, former Councilmember Greig Smith developed the Recovering Energy, Natural Resources and Economic Benefit from Waste for Los Angeles (RENEW L.A.) Plan which established a goal of 90 percent diversion by 2025.
- In 2006, the city established a goal of 70 percent diversion by 2013, which was accelerated to 75 percent by 2013.
- In 2006, the RENEW L.A. Plan was adopted unanimously by the City Council, including the adoption of a Zero Waste Goal.
- The City embarked on a comprehensive planning and stakeholder engagement process to develop SWIRP, which was initiated in 2006.

[2]"Solid Waste" is defined in the California Public Resources Code Section 4019 and includes all discarded materials (residential, commercial, industrial, and institutional).

Policy, Program, and Facility Phasing

The phasing schedule for SWIRP is shown in the figure below. The phasing schedule takes into account the diversion and disposal tonnage projections that would result from implementation of the policies and programs, and identifies the number and type of facilities that will be needed. The policy, program, and facility phasing approach will achieve the City's goal of 90 percent diversion by 2025.

Greenhouse Gas Emissions Reductions and Green Jobs

Implementation of SWIRP will have a profound effect in preserving natural resources and improving the quality of life of the residents of Los Angeles.

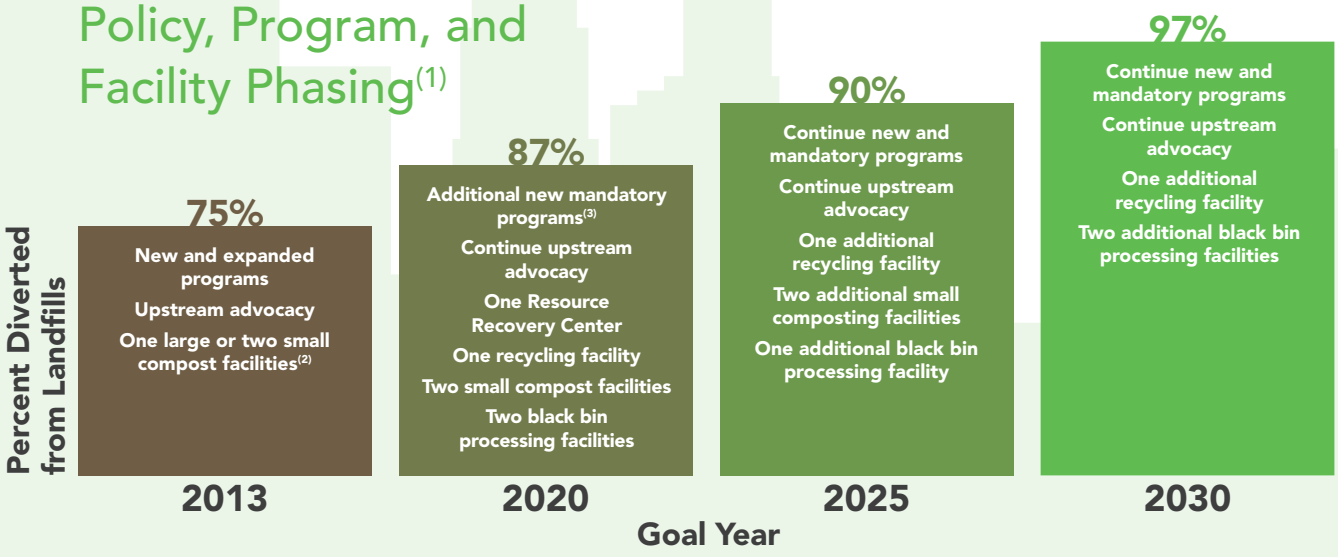
Landfills are one of the largest sources of methane, a powerful greenhouse gas which is 21 times more potent than carbon dioxide. As described in the GREEN LA Action Plan, the City can significantly reduce its greenhouse gas emissions levels through waste reduction and recycling. Recycling can reduce greenhouse gases both by reducing methane generation at landfills and by saving energy through recycling. In addition, through developing resource recovery centers and regional alternative technology facilities the amount of truck trips to landfills is decreased, further reducing greenhouse gas emissions.

SWIRP GHG Reduction and Green Job Potential

2.6 million
metric ton reduction in greenhouse gas emissions

4,000
new green jobs

Policy, Program, and Facility Phasing(1)



(1) Phasing assumed under SWIRP may not reflect actual implementation and/or roll-out of specific policies, programs and/or facilities.
(2) Facilities may be implemented by either the public or private sector, or by joint public-private partnerships, and may also include expansions to existing facilities.
(3) Statewide mandatory commercial recycling for commercial customers generating four cubic yards or greater of solid waste per week implemented in July 2012. Mandatory recycling and composting for all generators will be implemented locally by 2020.

considered are categorized as follows:

- Blue Bin Facilities – Facilities capable of processing source-separated recyclable and reusable materials, including materials recovered from the City's blue bin program and source-separated commercial recycling. Examples of blue bin facilities include material recovery facilities (MRFs) for commingled recyclable materials, and resource recovery centers for self-hauled materials.
- Green Bin Facilities – Facilities capable of processing yard trimmings, food scraps, and other compostable materials (e.g., food-soiled paper), either source-separated or sorted from other discarded materials at a processing facility. Examples of green bin facilities include mulching, composting, and anaerobic digestion facilities for source-separated organics.
- Black Bin Facilities – Facilities capable of processing residual waste from residential black bins, commercial waste sources, or residual waste from processing facilities. These facilities are also known as alternative technology facilities. Examples of black bin facilities include, but are not limited to, automated mixed material processing facilities, advanced thermal recycling, thermal facilities (such as gasification and pyrolysis), and anaerobic digestion facilities for residual waste.

Full implementation of the SWIRP policies and programs would require the construction and operation of the following additional blue, green, and black bin facilities:

1. One large-scale composting facility or six small-scale composting facilities
2. Three clean material recovery facilities
3. One resource recovery center
4. Five alternative technology facilities

Black bin processing facilities target residential and commercial residual waste, and residual waste that remains after recycling and composting (materials disposed of in blue bins and green bins that are unsuitable for processing). Even with the implementation of all the policies and programs identified in SWIRP, residents and businesses in the City would still produce over 1.5 million tons of residual waste annually that would need to be disposed in landfills or processed for further recycling and energy recovery. If all of the SWIRP policies and programs are implemented, up to five additional black bin processing facilities would be required to maximize diversion from landfills.

6. Disposal of Remaining Residual Waste at Local or Remote Landfills

After implementing various policies, programs, and constructing needed facilities to achieve the goals of SWIRP, there will be a need to transport and dispose residual waste to landfills. Local and remote landfills are categorized as follows:

- Local Landfill, Truck Haul – Landfills located within the local region that can accept residual waste transported from the City. This residual waste can either be direct-hauled to the landfill by refuse collection trucks, or trans-loaded to transfer trucks at local transfer stations.
- Remote Landfills, Truck Haul – Landfills located outside the local region that can accept residual waste from the City. This residual waste is transported by transfer trucks from local transfer stations to remote landfills.
- Remote Landfill, Rail Haul – Landfills located outside the local region that can accept residual waste from the City. This residual waste is transported by rail. Rail haul infrastructure may include, but is not limited to the construction of new and/or expansion of facilities such as rail transfer stations, intermodal facilities, rail yards, rail tracks and spurs, loading docks, rail right of way contracts and service, and other associated infrastructure.

Building Community Consensus

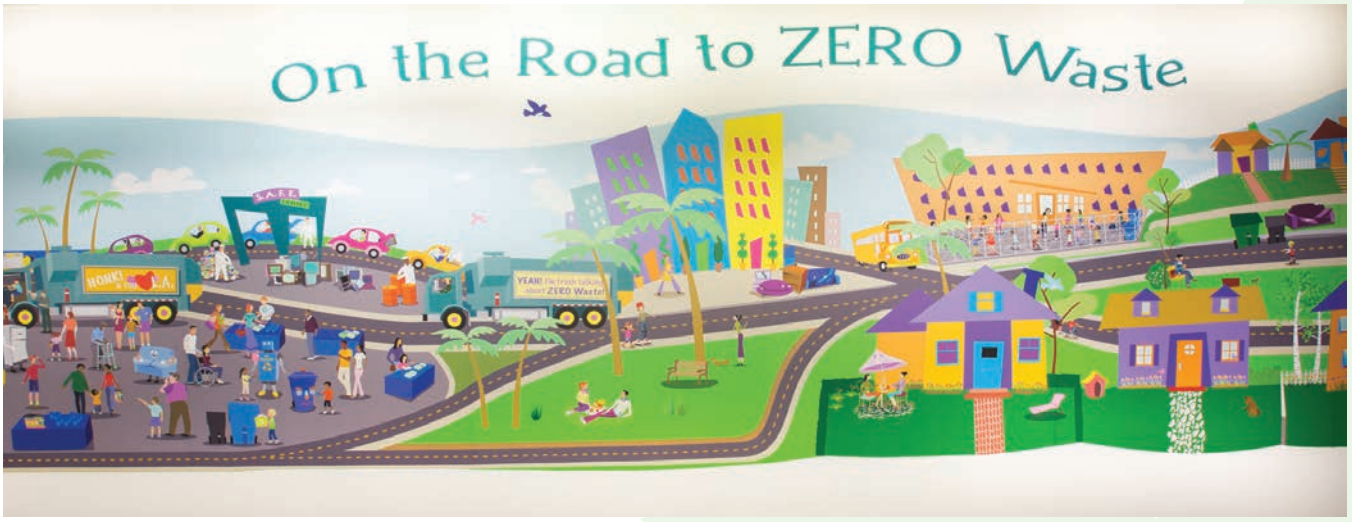
The planning process undertaken to develop SWIRP included the participation of stakeholders throughout Los Angeles. SWIRP reflects the long-term vision of the City's leaders, and the goals and guiding principles of the City's residents and businesses.

The programs and policies identified in SWIRP apply to everyone in the City of Los Angeles: residents, commercial businesses, industrial facilities, and institutional establishments. Some of the elements of the plan include incentives for reducing waste and increasing recycling or composting previously discarded materials, while others require the construction of facilities to recover recyclable materials, energy, and byproducts from discarded materials.

The SWIRP Planning Process

SWIRP is a stakeholder-driven plan to identify the City's needs for long-range management of discarded materials through 2030 and to develop the citywide consensus for moving forward to address these needs. SWIRP stakeholders established their vision for SWIRP through the adoption of twelve guiding principles. These guiding principles were developed through an extensive public outreach process, bringing together more than 3,000 stakeholders from throughout the City during more than 250 meetings, workshops, and citywide conferences.

1. **Education to decrease consumption** – Stakeholders felt that the City should instill a "Zero Waste culture" citywide. A key strategy for increasing awareness among the next generation of Angelenos was the stakeholder recommendation to partner with Los Angeles Unified School District to develop a Zero Waste curriculum and increase recycling in the schools.
2. **City leadership as a model for Zero Waste practices** – Stakeholders agreed that the City should "walk its talk" by demonstrating leadership in recycling at all City facilities and parks, and modeling Zero Waste behaviors such as phasing out expanded polystyrene containers and single use water bottles.
3. **Education to increase recycling** – Stakeholders asserted that the City should put more emphasis on educating residents and businesses about existing City programs and encourage them to make recycling and Zero Waste "second nature."
4. **City leadership to increase recycling** – Stakeholders want the City to use its stature in Sacramento to influence State legislation on initiatives that are best implemented at the State level, such as producer responsibility and packaging legislation.
5. **Manufacturer responsibility** – Stakeholders supported initiatives to encourage or require producers of products and packaging to take responsibility for the "end of life" management of those products and packaging.



6. **Consumer responsibility** – Stakeholders believed that consumers, including both residents and businesses, need to be part of the solution and should be required to participate in recycling and composting programs.

7. **Convenience** – Stakeholders felt that recycling programs should be convenient and that it should be as easy to recycle as it is to waste. A key strategy for increasing convenience is to provide recycling receptacles along-side receptacles.

8. **Incentives** – Stakeholders suggested that the City provide more incentives for recycling and composting, such as "pay-as-you-throw" rate structures.

9. **New, safe, technology** – Stakeholders supported the development of new technology for managing the City's residual waste.[3] However, stakeholders emphasized that the technology would need to be demonstrated to be safe and should not impact already burdened communities.

10. **Protect public health and the environment** – Stakeholders strongly believed that protecting public health and the environment should be at the forefront of all decision-making. When embarking on any new idea or plan, the City should carefully consider the long-term consequences and impacts.

11. **Equity** – Throughout the planning process, stakeholders supported the concept of equity: shared responsibility for taking care of our waste problems. Stakeholders felt that all areas of the City should share in the burden and benefits of new facilities and that new developments should pay their fair share of the system-wide costs. All generators should have access to recycling and composting programs and sensitive environmental areas and communities should not be burdened with waste impacts. Green jobs created by new programs and facilities should support the local communities, including disadvantaged youth and formerly incarcerated residents who need help transitioning back into the community.

[3]"Residual waste" refers primarily to the discarded materials that remain after reducing, reusing, recycling, and composting; or after processing the materials through a mixed materials processing facility. This material can be further treated through an alternative technology facility or disposed as solid waste in a landfill.

To provide more assurances as to the effectiveness of these programs, the City would implement enforcement and education through recycling ambassadors for residential customers and other measures, as well as provide increased direct technical assistance to commercial businesses and institutions.

4. Adoption of Upstream Policies

"Upstream" describes policies that would minimize the amount of waste prior to the point of generation. Upstream policies would affect design of the product or package prior to manufacturing. Extended Producer Responsibility (EPR) is a strategy for encouraging manufacturers to take responsibility for the end-of-life of their products. Upstream policies may include material bans, such as the expanded polystyrene (EPS) foam ban in Los Angeles City facilities and the reusable bag policy that the City Council adopted in May 2012.[8]

The following are the City's priority upstream policies:

1. Advocate for legislation making businesses responsible for their products, which if inappropriately disposed, can release toxics into the environment. Toxics include such items as pharmaceuticals, used needles (sharps), fluorescent lights, household batteries, treated wood, and other materials banned from disposal statewide
2. Advocate for legislation making businesses responsible for their products that are difficult to recycle such as disposable diapers, composite materials, appliances, durable goods, and food packaging
3. Advocate for legislation making businesses responsible for their packaging, including alternatives to EPS foam (containers, "peanuts," and "blocks"), single-use bags, and support for reusable shipping containers

Griffith Park Composting Facility

4. Implement the citywide reusable bag policy at designated supermarkets and retail establishments
5. Advocate for businesses to develop life-cycle analyses for products and packaging, taking into account all environmental impacts of the product from manufacturing to the end of its useful life
6. Advocate for legislation to incentivize manufacturers to use local reuse and recycling markets for the products they manufacture.

5. Development of Processing Facilities for Discarded Materials

An essential component of SWIRP is to identify and develop future facilities to meet the City's solid waste management needs through 2030. Throughout Phase 1 of the SWIRP planning process, stakeholders discussed facility options and toured local materials processing facilities. During Phase 2, stakeholders identified the specific facility needs resulting from implementation of SWIRP, including options for maximizing diversion through residual waste separation and processing. The facilities

[8]On May 23, 2012, the City Council adopted a policy to ban distribution of single-use plastic bags and impose a 10-cent fee on single-use paper bags at supermarkets and select retail stores within the City.

2. Implementation of New Downstream Policies and Programs

"Downstream" policies and programs address collection, processing, diversion, and disposal of materials after they are generated. The City has identified additional downstream programs that would be needed to achieve Zero Waste, including:

- Expanding the Recycling Ambassador Program to assist residential customers in proper use of the City's recycling and yard trimmings collection program
- Expanding the Commercial Recycling Technical Assistance Program to assist commercial businesses to implement recycling programs
- Adding textiles to the blue bin program or partnering with non-government organizations to divert textiles from landfills
- Providing separate collection of bulky items for recycling, repair and reuse and/or partner with a number of reuse entities (thrift stores, repair shops, and non-profits to repair, reuse, and resell appropriate bulky items)
- Adding food scraps to the green bin program[6]
- Implementing a large-scale media/social marketing campaign to create a "culture change" around discarded materials and their value as resources
- Modifying collection rates to increase diversion by providing incentives to ratepayers
- Providing recycling bins wherever trash cans are located in all public locations
- Requiring private solid waste collection service providers to ensure that their multi-family and commercial customers have access to recycling collection services

To ensure that all commercial and multi-family customers have access to recycling services, on April 24, 2013, the City Council approved LASAN's Franchise Implementation Plan for commercial and multi-family solid waste collection and recycling in the City.[7]

3. Implementation of Mandatory Participation Programs

Mandatory participation programs represent a major shift in recycling collection programs, and are intended to motivate all waste generators within the City (single-family and multi-family residential, commercial, governmental, institutional, and industrial generators) to separate materials at their homes or businesses, and place them in the appropriate blue bin, green bin, or other appropriate collection bins on a regular basis. Some of the mandatory participation programs include:

- Mandatory recycling (blue bin) and organics separation (green bin) from trash (black bin)
- Requiring transfer stations and landfills to provide resource recovery centers for reusable and recyclable materials for customers that self-haul their discarded materials to the landfill
- Increasing diversion requirements at construction and demolition facilities

[6]The City has implemented a food scrap pilot program for 8,700 residential curbside customers.
[7]The Council Action on Exclusive Franchises is available through the City of Los Angeles Council File 10-1797-81.

12. Economic efficiency – Stakeholders felt that the City must invest carefully in new programs and facilities, but costs should not outweigh other considerations. The City should also consider the long-term economic benefits of reducing waste and creating a more sustainable society. The City should find solutions that are both economically efficient and environmentally preferable and promote economic sustainability through investment in green jobs and economic development.

Plan Elements

To realize the vision articulated in the guiding principles and to reach the City's goal of 90 percent diversion by 2025, SWIRP recommends a strategic approach to the management of discarded materials with the following six key components:

1. **Expansion of existing residential and commercial programs**
2. **Implementation of new downstream policies and programs**
3. **Implementation of mandatory participation programs**
4. **Adoption of upstream policies**
5. **Development of processing facilities**
6. **Disposal of remaining residual waste at local or remote landfills**

1. Expansion of Existing Residential and Commercial Programs

The City has many successful programs in place for managing residential and commercial solid waste, and diverting discarded materials from landfills. Under SWIRP, these programs would be expanded, as appropriate, to further improve solid waste management, increase landfill diversion, and accommodate growth. Current City programs include:

- Four-bin collection program for residential curbside customers[4] (blue bin for commingled recycling, green bin for yard trimmings, black bin for residual waste, and brown bin for horse manure[5])
- Multi-family blue bin recycling available to all multi-family buildings in the City
- Bulky item collection available to all residential curbside customers and multi-family generators
- School blue bin recycling program and classroom recycling presentations available to all schools in the City within the Los Angeles Unified School District
- Restaurant food scraps collection available to all restaurants in the City
- Mandatory processing of all construction and demolition (C&D) loads at 13 certified C&D facilities
- Environmentally Preferred Procurement (EPP) ordinance requiring City procurement of environmentally preferred services and products, as called for in RENEW L.A.
- Commercial recycling technical assistance available to all commercial and institutional generators in the City
- Alternative Clean Fuel Program for powering the City's collection vehicles with clean burning engines
- City Department recycling available to all City offices and facilities
- Seven Solvents/Automotive/Flammables/ Electronics (S.A.F.E.) centers for proper management of household hazardous wastes located throughout the City
- Processing and composting of yard trimmings and making the mulch available free of charge to City residents at 11 giveaway locations

[4]Residential curbside customers include generators in single-family residences and some multi-family residences, primarily with four units or less, serviced by LASAN.

[5]Horse manure is considered part of the "green bin material" program, as the materials are composted.

Downstream Facilities for Processing Materia

Clean Materials Recovery Facilities (MRF)

Tons per day: **50-600**
Cost per ton: **Pays $10-30**
Acres required: **5-10**

Phoenix North Transfer Station and Material Recovery Facility

Resource Recovery Centers

Tons per day: **10-200**
Cost per ton: **$50-100**
Acres required: **2**

San Luis Obispo RR Park

Composting - Large Scale and Small Scale

Tons per day: **100-1000**
Cost per ton: **$40-60**
Acres required: **15-60**

Lamont Composting Facility Kern County, CA

Construction and Demolition (C&D) Facilities

Tons per day: **50-500**
Cost per ton: **$30-40**
Acres required: **10**

Downtown Diversion C&D Facility Los Angeles, CA

"Blue Bin" and "Green Bin" Processing

New diversion programs will require new diversion facility capacity including:

- Clean Material Recovery Facilities
- Composting Facilities
- Resource Recovery Centers
- Construction and Demolition Facilities

The City developed tonnage, cost and acreage estimates for each facility type. Costs per ton for each facility type include both capital costs (land, equipment, permitting) and operating costs (labor, operations, maintenance).

"Black Bin" Processing

By implementing all of the policies and programs described in SWIRP, the City can achieve as much as 86 percent diversion. To reach beyond 86 percent and achieve 94 to 98 percent diversion, the City will need to process "black bin" materials. These materials include both residential and commercial residual waste (the materials that end up in the "black bin"). This includes materials that cannot be recycled or composted and materials that get thrown away by mistake.

"Black bin" processing facilities include:

- Automated Mixed Material Processing Facilities
- Alternative Technology – Advanced Thermal Recycling
- Alternative Technology Biological – Anaerobic Digestion
- Alternative Technology Thermal – Plasma Arc/Gasification/Pyrolysis

ls from the Blue Bin, Green Bin and Black Bin

Automated Mixed Material Processing

Tons per day: **200-400**
Cost per ton: **$40-60**
Acres required: **5-7**

Rainbow Disposal
Huntington Beach, CA

Alternative Technology – Biological (Anaerobic Digestion)

Tons per day: **200-500**
Cost per ton: **$100-130**
Acres required: **5-10**

Dranco
Brecht, Belgium

Alternative Technology - Advanced Thermal Recycling

Tons per day: **500-2000**
Cost per ton: **$120-200**
Acres required: **5-15**

Fernwärme Wien Advanced Thermal Recycling Facility
Spittelau, Vienna, Austria

Alternative Technology – Thermal (Plasma Arc/ Gasification/ Pyrolysis)

Tons per day: **100-500**
Cost per ton: **$120-200**
Acres required: **2-7**

JFE Thermoselect
Chiba, Japan

Benefits and Impacts of "Black Bin" Processing

Benefits of processing our "Black Bin" materials include:

- Reduce reliance on landfilling
- Reduce greenhouse gas emissions
- Recover recyclable or compostable materials from the "black bin"
- Some facilities create energy reducing reliance on fossil fuels
- Some facilities recover chemicals or other by-products
- Take responsibility for our waste locally

All facilities that combust waste, biogas or syngas create emissions:

- Nitrogen oxides (NOx)
- Sulfur oxides (SOx)
- Particulate matter (PM10, PM2.5)
- Toxic chemicals (dioxins, furans)
- Volatile organic compounds (VOCs)
- Carbon monoxide (CO)

Best available pollution control technology can reduce emissions. Any new facility sited by the City would need to meet stringent emission controls and other mitigations.

1

City of Los Angeles
Solid Waste Integrated Resources Plan's (SWIRP)
Waste Management Hierarchy