December 11, 2008

TO: Members of the Facility and Plan Review Subcommittee
Los Angeles County Solid Waste Management Committee/
Integrated Waste Management Task Force

FROM: Chuk Agu CA
Staff

POTENTIAL REVISIONS TO CHAPTER 4 OF THE LOS ANGELES COUNTY COUNTYWIDE SITING ELEMENT

Attached is the 3rd draft revisions to Chapter 4 (Current Disposal Rate and Assessment of in-County Disposal Capacity Needs) of the Countywide Siting Element, for your review and discussion at the December 18, 2008, Subcommittee meeting.

Please note that the data contained in this draft is based on the Countywide Siting Element 2006 Annual Report. However due to the dynamic nature of solid waste management in Los Angeles County, the information will continue to be updated as new data become available.

Also, due to the extent of the proposed revisions to the Chapter, a redline (Attachment I), and clean (Attachment II) versions of the draft revisions are provided.

If you have any questions, please contact me at (626) 458-3556, Monday through Thursday, 7 a.m. to 5:30 p.m.

Attach.

CA:cw

ATTACHMENT I

POTENTIAL REVISIONS TO CHAPTER 4 (3RD DRAFT) OF THE LOS ANGELES COUNTY COUNTYWIDE SITING ELEMENT (Redline Version)

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CHAPTER 4
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 and to address the disposal capacity needs of the 88 cities in Los Angeles County and the County unincorporated communities for a planning period of 15 years pursuant to Title 14, Section 18755.3(b), of the California Code of Regulations (CCR). Specific requirements for the content of this chapter are drawn from Title 14, Sections 18755 and 18755.3 of the CCR.

4.2 REQUIREMENTS

The California Code of Regulations, 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 the CCR, Title 14 Section 18777(b).

(2) The existing permitted disposal capacity in tons and cubic yards in the year the Siting Element is prepared; 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.

4.3 DEFINITIONS

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

4.3.1 Adjustment Method

"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 Integrated Waste Management Board (CIWMB) 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 Section 41780.1). Title 14, CCR, Chapter 9, Article 9.1, requires that population, employment, taxable sales, and Consumer Price Index be used in the adjustment method formula.

~~4.3.1~~4.3.2 Alternative Technology

"Alternative Technology" refers to a municipal solid waste residual processing technology to process refuse or post-source separated waste utilizing technologies, such as conversion technology, transformation, and other emerging technologies in lieu of land disposal.

~~4.3.1~~4.3.3 Available Out-of-County Disposal Capacity

"Available Out-of-County Disposal Capacity" refers to the capacity of out-of-County Class III landfills available for ~~amount of~~ solid waste generated in Los Angeles County that needs to be disposed of based on the current export rate and the future disposal capacity in the out-of-County landfills potentially available for Los Angeles County waste exports and can be accepted by the out-of-County Class III landfills~~. that are currently accepting solid waste from Los Angeles County.~~

4.3.4 Base-year Generation

"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 basis for subsequent year CIWMB estimates of jurisdiction's waste generation and diversion rates.

4.3.5 Biomass Processing

"Biomass Processing" refers to the controlled combustion, when separated from other solid waste and used for producing electricity or heat, of the following materials: (1) agricultural crop residues, (2) bark, lawn, yard and grass clippings, (3) leaves, silvicultural residue, and tree and brush pruning, (4) wood, wood chips, and wood waste, (5) residual pulp or paper materials. "Biomass Processing" does not include the controlled combustion of recyclable pulp or recyclable paper materials, or materials which contain sewage sludge, industrial sludge, medical waste, hazardous waste, or either high-level or low-level radioactive waste.

~~4.3.2~~4.3.6 CDI Waste Disposal Facility

"CDI Waste Disposal Facility" is defined in Section 17388, Title 14 of the CCR as a facility at which construction and demolition (C & D) waste, C & D waste together with inert debris (Type A or B) or inert debris (Type B only) is disposed.

~~4.3.3~~4.3.7 Class III Landfill Disposal Need

"Class III Landfill Disposal Need" refers to the difference between the total disposal need (excluding inert waste landfills) and the available disposal capacity of the transformation facilities, and available out-of-County disposal, and alternative technology facilities.

~~4.3.4~~4.3.8 Conversion Technology

"Conversion technology" refers to a wide array of state-of-the-art 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 other than composting.

~~4.3.5~~4.3.9 Disposal Facility

"Disposal Facility" is defined in Section 40121 of the Public Resources Code as "any facility or location where disposal of solid waste occurs."

~~4.3.6~~4.3.10 Export Need/Out-of-County Disposal Need

"Export Need/Out-of-County Disposal Need" refers to the amount of solid waste generated in Los Angeles County that needs to be exported out of the County for disposal.

~~4.3.7~~4.3.11 In-Place Solid Waste Density/Compaction Rate

"In-Place Solid Waste Density/Compaction Rate" refers to the ~~compaction rate, i.e., the~~ density in pounds ~~by~~ per cubic yard of solid waste (excluding cover materials used) deposited in a landfill after it has been compacted. Throughout this CSE, the in-place solid waste density/ 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~~y/~~ and Transfer Stations.

~~4.3.8~~4.3.12 Inert Debris Engineered Fill Operation

"Inert Debris Engineered Fill Operation" 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. (Reference: Title 14 Section 17388 of the CCR).

~~4.3.9~~4.3.13 Inert Waste Landfill

"Inert Waste Landfill" refers to a broad category of landfills, which accept only inert waste for disposal. Inert Waste Landfills include facilities/operations such as inert debris disposal facilities, inert debris engineered fill operations, and inert debris engineered fill activities. The Inert Waste Landfills are grouped into four distinct regulatory tiers, namely, Full Solid Waste Facility Permit tier, Registration, Enforcement Agency Notification, and Excluded Operation tiers. Inert waste includes materials such as soil, concrete, asphalt, and other construction and demolition debris. These landfills must be designed and operated in accordance with all laws and regulations mandated by State, regional, and local jurisdictions. **(Reference: Title 14, Section 17387 of the CCR).**

~~4.3.10~~4.3.14 Planning Period

The 15-year planning period is defined to begin with the year in which the CSE is prepared or revised. For the purpose of this CSE, "Planning Period" refers to the period beginning in the year 2006 and ending in the year 2021.

~~4.3.11~~4.3.15 Permitted Capacity

"Permitted Capacity" refers to the total 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 (LUP/CUP), Waste Discharge Requirements (WDR) ~~p~~Permit, or the Air Quality Management District (AQMD) Permit to Operate, whichever is less.

4.3.16 Permitted Solid Waste Landfill/Permitted Landfill

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

~~4.3.12~~4.3.17 Remaining Daily Disposal Capacity Need (Shortfall)

"Remaining Daily Disposal Capacity Need (Shortfall)" refers to the daily amount of solid waste in need of disposal in excess of the in-County and available out-of-County disposal capacity.

~~4.3.13~~4.3.18 Solid Waste Disposal Capacity

"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.

~~4.3.14~~4.3.19 Transformation Facility

"Transformation Facility", ~~A~~as used herein, ~~"transformation facility"~~ refers to a facility whose principal function is to process solid waste by incineration. Transformation facility does not include composting, gasification, conversion or biomass processing facilities.

~~4.3.15~~4.3.20 Waste-to-Energy Facility

"Waste-to-Energy Facility" refers to a transformation facility, 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 that engages in the cogeneration of electricity through the incineration of excess solid waste.

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 the 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 Los Angeles County, as well as a projection of remaining permitted combined capacity of these facilities. A summary of the study was submitted to the California Integrated Waste Management Board (CIWMB) in a report dated March 28, 1991. A copy of the Report is provided in **Appendix 4-A**.

4.4.1.2 Integrated Solid Waste Management Information System

Prior to the current Disposal Reporting System (DRS) , the Los Angeles County Department of Public Works (LACDPW~~Department~~) has~~d~~ 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 submitted to the Department on a quarterly basis by the facility operators. These invoices were audited periodically and were compared with the quantities landfill and transformation facility operators report to local enforcement agencies, as well as 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 reports were then mailed to the CIWMB 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, the CIWMB adopted regulations for the current Solid Waste Disposal Reporting System, pursuant to Sections 18800 through 18813 of the CCR, as amended, and

Section 41821.5 of the PRC. ~~Effective~~From January 1995, the regulations required all solid waste disposal facility operators/owners to provide information to the County on a quarterly basis as to the quantities of waste disposed at their facilities by individual jurisdictions. ~~Based on these regulations formulated by the CIWMB, the DRS provides the jurisdictions in Los Angeles County and the Los Angeles County Department of Public Works with a valuable tool for tracking the amount of solid waste disposed by all jurisdictions utilizing solid waste disposal facilities in the County. The CIWMB regulations mandated that disposal facility operators, through quarterly surveys, obtain the jurisdictional origin of the waste being disposed at their facilities from haulers. The facility operators were required to submit this information to the County.~~ The County in turn reports the information to each jurisdiction as to the amount of waste disposed at each disposal facility during the quarter.

~~To assist the local jurisdictions, solid waste haulers and facility operators in their compliance with these regulations, the Task Force drafted uniform Disposal Quantity Reporting Forms and distributed them to all cities, haulers, and facility operators in Los Angeles County for their review and comments.~~

The 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 CSE to determine~~measure~~ the 2006 disposal quantities (see Section 4.4.4~~5~~) and conduct projection of~~project~~ waste generation quantities (see Section 4.5.4) for the 2006-2021 planning period.

4.4.1.4 Solid Waste Information Management System

In 2006~~5~~, LACDPW~~Los Angeles County Department of Public Works (Public Works) set out to~~ launched~~develop~~ ~~the Los Angeles County~~a web-based Solid Waste Information Management System (SWIMS)~~.~~ ~~SWIMS is a web-based system~~ that would allow governmental agencies, the public, and private businesses to conveniently access solid waste information online (www.solidwastedrs.org). In addition, the data gathered is used to~~also imperative in~~ assist~~ing~~ each ~~city and county~~jurisdiction to better plan, develop, and monitor waste recycling and diversion programs. ~~Public Works~~LACDPW consulted and worked with the California Integrated Waste Management Board (CIWMB) to ensure the system's compatibility with the CIWMB's standards. ~~SWIMS allows for the uploading, managing, reporting, publicizing, and downloading of solid waste disposal information for the County of Los Angeles via the Internet.~~

~~On the average, e~~Every month, the operators of the current 28 landfills, two waste-to-energy (transformation) facilities, ~~50~~41 Materials Recovery Facility (MRF)~~/TS~~, 18 Transfer stations and 140 waste haulers log on to SWIMS website ~~(www.solidwastedrs.org)~~ to submit the required solid waste disposal information for their facility. ~~After submitting the information, they can generate reports, update figures, and make changes using minimal Public Works staff resources.~~

Once the solid waste disposal information is submitted, ~~Public Works~~LACDPW notifies the respective governmental agencies for verification, and finalizes it for publication to approximately 300 cities and counties and to the CIWMB once the data is verified. ~~All data is managed in one central location electronically. Public Works also answers any questions submitted via e-mail or over the phone and maintains the website with any updates or problems that may occur.~~

~~When the solid waste disposal information is publicized, all records can be made available online. Any user, whether Public Works, facility operators, the State, governmental agencies, or the general public, can access solid waste disposal information and download a wide variety of pre-defined or user-defined reports. Access to this information is crucial for solid waste management and planning for all stakeholders in the County. In August 2006, SWIMS became operational.~~

4.4.2 1990 Disposal Quantities and Capacity

As previously discussed in Section 4.4.1.1, in March 1991, the Task Force ~~(Task Force)~~ completed a study that quantified the amount of solid waste disposed of at landfills and transformation facilities located in Los Angeles County, as well as a projection of remaining permitted combined capacity of these facilities. An overview of the study is provided below.

4.4.2.1 1990 Disposal Quantities

In 1990, the residents/businesses of Los Angeles 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 waste-to-energy facilities (does not include 0.15 million tons of residual ash which was landfilled); and 2.1 million tons (13 percent) were disposed ~~of~~ at the then **"unclassified landfills"[1].** A list of the Class III landfill facilities, as well as disposal quantities for each facility as provided in the March 28, 1991, report to the CIWMB~~, is provided in~~ (see **Appendix 4-A**). ~~The disposal quantities listed were established based on monthly surveys of solid waste facilities conducted by the Los Angeles County Department of Public Works during the 1990 calendar year, a written survey of each solid waste facility conducted during the month of October 1990, and a telephone survey conducted in January 1991.~~

The above quantities translated into a 1990 average disposal rate of approximately 51,000 tpd (six days/week) Countywide; 43,245 tpd (85 percent) at Class III landfills; 1,000

[1] "Landfill previously referred to as "unclassified landfills" are now referred to as inert waste landfills.

tpd (two percent) at ~~(~~transformation~~)~~ (waste-to-energy) facilities (excluding 500 tons of ash that was landfilled), and 6,755 tpd (13 percent) at permitted inert waste landfills.

4.4.2.2 1990 Remaining Permitted Disposal Capacity

The remaining permitted disposal capacity for Class III landfills as of December 31, 1990, was also established by the Task Force at approximately 99 million tons (156 million cubic yards based on the in-place solid waste density/compaction rate provided by landfill operators). The analysis was based on various data collected by the LACDPW~~Los Angeles County Department of Public Works~~ from facility operators and site specific permit criteria established by local land use agencies, local enforcement agencies, California Regional Water Quality Control Boards and the CIWMB. A summary of the data collected and various permit limitations are also shown on **Table 4-1**.

The remaining permitted combined disposal capacity of Class III landfills as of January 1, 1990, was established at approximately 112.15 million tons (177 million cubic yards), which was the sum of the remaining permitted capacity as of December 31, 1990, and the total quantities disposed during the 1990 calendar year.

4.4.3 1990-2006 Disposal Trends

The reported disposal quantities during this period are summarized on a yearly basis in **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 1990-1993 are not available, the amounts were not included in the disposal amount for determining the trends for 1990-1993 and 1996-1998.

4.4.3.1 1990-1995 Disposal Trends

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

~~Based on the disposal information from the Integrated Solid Waste Management Information System, a~~ 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, ~~at permitted Class III landfills within the County,~~ 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 Los Angeles County to disposal facilities located outside the County. However, there was a net upward trend in the export amount from 1992-1995 **(see column C of Tables 4-2 and 4-3)**.

Similarly, there is no available data from 1990-1993 on the amount imported into Los Angeles County. However, ~~A~~another trend that developed during this period was a ~~net upward trend~~sharp increase in the amount of municipal solid 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)** which originated from neighboring counties such as Orange, Riverside, San Bernardino, San Diego, and Ventura Counties. ~~During the 1995 calendar year, approximately 774,000 tons of solid waste were disposed at in-County facilities,.~~ 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 Los Angeles County, (i.e., the total amount disposed at Class III landills and transformation facilities including exports and excluding imports) showed a decreasing trend from 1990 to 1995 **(see column F 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 to 1995, much of the~~is~~ reduction occurred as a result of the recession experienced in the region between 1990 and 1995.

4.4.3.2 1996-2000~~6~~ Disposal Trends

The reported disposal quantities during this period are summarized on a yearly basis in **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 at in-County Class III landfills **(see column A of Tables 4-2 and 4-3).** ~~was observed during the period 1996 through 2005, at permitted Class III landfills within the County and~~However, there was a relatively stable trend ~~no reduction~~ in the quantities of solid waste managed at the two transformation facilities. ~~The reported disposal quantities from the years 1996 (11,854,479 tpd) to 2005 (12,286,394 tpd) are summarized on a yearly basis in **Tables 4-2** (in tons) and **4-3** (in cubic yards).~~

There is no available data from 1996 to 1998 on the amount exported by jurisdictions in Los Angeles 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).

~~Another trend that developed during this period was a cyclical but net upward trend in the amount of municipal solid waste exported to other counties. Based on available data, in 1992, 22,000 tons (71 tpd) was exported out of Los Angeles County and by the year 2005, approximately 2,177,097 tons (6,978 tpd) of solid waste were exported to out-of-County facilities.~~

Also, there was a sharp decline in the amount of municipal solid waste imported from other counties which originated from neighboring 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 which originated from outside Los Angeles County in 1996 were disposed at in-County facilities, compared to approximately 229,320 tons (735 tpd) in 2000.

Furthermore, the amount disposed by jurisdiction in Los Angeles County, (i.e., the total amount disposed at Class III landills and transformation facilities including exports and excluding imports) showed a decreasing trend from 1996 to 2000 **(see column F 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 **Tables 4-2** (in tons) and **4-3** (in cubic yards).

A cyclical but net downward trend in the quantities of solid waste disposed at in-County Class III landfill was observed during the period 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 municipal solid waste exported for disposal to outside the County. Based on available data, approximately 1,095,711 tons (3,512 tpd) was exported out of Los Angeles County in 2001 and approximately 2,177,097 tons (6,978 tpd) was exported in 2005.

~~Based on the DRS reports, from 2000 to 2005, on the average approximately 80 percent of the residual solid waste generated in Los Angeles County (i.e., the amount destined for disposal after waste diversion) was disposed in landfills located in Los Angeles County. The remaining 20 percent (about 7,000 tpd) were exported for disposal at out-of-County Class III landfills. The majority of the 20 percent average waste export was to surrounding counties. For example, Orange, Riverside, and Ventura Counties respectively received eight, eight and two percent of the 20 percent waste exports. The remaining two percent of the exports were sent to landfills in Alameda, Fresno, Kern, King, San Bernardino, San Diego, Solano, and Stanislaus counties.~~

4.4.4 2006 Disposal Quantities and Capacity

4.4.4.1 2006 Disposal Quantities

The 2006 disposal quantities are based on DRS and SWIMS data for the period of January 1 through December 31, 2006. In 2006, the residents and businesses in Los Angeles County

disposed of approximately 12~~11.9~~ million tons of solid waste at existing permitted land disposal and transformation facilities located in and out of County. The disposed quantity distribution among the various types of disposal facilities was~~as~~ as follows:

- In-County Class III Landfills

  - Eight major landfills 9,457,175 tons

  - Four minor landfills[~~2~~] 126,051 tons[2]

- In-County Transformation facilities 537,733 tons

- In-County Permitted inert waste landfills 101,748 tons[3]

- Exports to out-of-County Class III landfills 1,782,609 tons

- **Total amount disposed 12,005,316 tons**

The above disposal quantities for solid waste generated in Los Angeles County translate into a 2006 average disposal rate of approximately 38,152 tpd (six days/week) Countywide; (i.e., 30,715 tpd at Class III landfills; 1,724 tpd at waste-to-energy facilities; 326 tpd at permitted inert waste landfills; and 5,713 tpd exported to out-of-County Class III landfills). **Table ~~4-9~~4-8** lists existing permitted landfills, and transformation facilities and the quantities of solid waste disposed of originating in Los Angeles County. In addition, approximately 854 tpd (six days/week) were imported to Los Angeles County for disposal at Class III landfills, permitted inert waste landfills, and transformation facilities. Please note that the quantities listed in **Tables 4-2** and **~~4-9~~4-8** may differ slightly from the above quantities due to the rounding of numbers.

4.4.4.2 Remaining Permitted Disposal Capacity as of December 31, 2006

As part of the preparation for the revised CSE, a new study was conducted by the LACDPW~~Los Angeles County Department of Public Works~~ to determine (among other things) the remaining combined permitted disposal capacity, as of December 31, 2006. The study consisted of a written survey of all permitted solid waste disposal facilities in Los Angeles County, as well as review of site specific permit criteria established by local land use agencies, local enforcement agencies, California Regional Water Quality Control Boards

[2] The total disposal tonnage of 126,051 tons for minor Class III landfills does not include Brand Park Landfill.
[3] The total disposed tonnage of 101,748 tons for the permitted inert waste landfill includes Brand Park. This is because Brand Park Landfill is currently only accepting inert waste, even though it is classified as a minor Class III Landfill.

and the South Coast Air Quality Management District. A summary of the data collected and existing permit limitations are provided in Chapter 3, and shown in **Tables 4-4 and ~~4-9~~4-8.**

Based on the data provided in **Table ~~4-9~~4-8**, as of December 31, 2006, the remaining permitted combined disposal capacity for Class III landfills and transformation facilities located in Los Angeles County are estimated as follows:

- Remaining permitted Class III landfill capacity = 87.83 million tons (approximately 143.33 million cubic yards).
- The remaining permitted inert waste landfill capacity = 47.02 million tons (51.43 million cubic yards).
- The permitted average daily transformation facility capacity = 2,069.09 tons per day.

The above permitted average daily transformation facility capacity is a 6-day/week average based on the Solid Waste Facility Permit limit of 2,800 tons per week for the Commerce Refuse-to-Energy Facility (CREF) and an Environmental Protection Act (EPA) limit of 500,000 tons per year for the Southeast Resource Recovery Facility (SERRF). It should also be noted that ~~all~~the ash residuals generated by CREF and ~~4.9~~97.3 percent of the ash residual generated by SERF are currently being diverted for beneficial use. The remaining 2.7% of ash residual generated by SERF is landfilled.

4.5 DISPOSAL NEED PROJECTIONS FOR THE PLANNING PERIOD (2006 – 2021)

Section 18755.3 (b) of Title 14 of the CCR requires a description of the anticipated disposal capacity needs for the 15-year planning period beginning with the year the CSE is prepared, and in any year the Siting Element is revised.

4.5.1 Base Year Waste Generation and Disposal

~~The DRS data and the monthly solid waste disposal data submitted by the disposal facility operators on-line to the Los Angeles County Department of Public Works through the SWIMS website provide accurate, up-to-date information on the total quantities of solid waste disposed of at Los Angeles County facilities and on the quantities exported for disposal at out-of-County sites. Thus,~~ The year 2006 is used as the base year for projecting future waste generation quantities since it is the year for which the most current and complete disposal data is available~~., (i.e., 2006), was selected as the base year to be used in projecting waste quantities. The 2006 disposal quantities are based on DRS and the SWIMS database for January 1, 2006, through December 31, 2006.~~

In 2006 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	9,583,227	tons
In-County Transformation facilities	537,733	tons
In-County Permitted Inert Waste landfills[4]	101,748	tons
Exports to out-of-County Class III landfills	1,782,609	tons
Total Disposed	**12,005,317**	tons

In summary, jurisdictions within Los Angeles County disposed of approximately 11,903,569 tons of solid waste at Class III landfills and transformation facilities located in and out of the County (excluding inert waste disposed at permitted inert waste landfills). **Table 4-5** shows the 2006 disposal quantities for solid waste disposed at Class III in-County landfills and in-County transformation facilities. Out-of-County exports to Class III landfills are also taken into consideration. The 2006 Solid Waste Generation of 23,807,137 tons (the basis of the solid waste generation projections) was calculated assuming a diversion rate of 50 percent. This estimate of waste generation excludes disposal at the inert waste landfills that do not have Full or Registration tier Solid Waste Facility permit.

The above disposal quantities for solid waste generated in the County translate into a 2006 average disposal rate of approximately 38,152 tpd (six days per week) Countywide (i.e., 30,715 tpd at Class III landfills 1,724 tpd at transformation facilities, and 5,713 tpd exported to out-of-County Class III landfills). The disposal quantities at permitted inert waste landfills, translates to approximately 326 tpd. **Table ~~4-9~~4-8** lists existing permitted landfills and transformation facilities and the quantities of solid waste disposed that originated from within Los Angeles County.
In addition, approximately 854 tpd (six days per week) were imported for disposal at in-County Class III landfills, permitted inert waste landfills, and transformation facilities.

In order to determine the 2006 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.

In 2005, the CIWMB–approved diversion rate for the entire Los Angeles County was 50 percent. In 2006, ~~T~~the unofficial Countywide diversion rate ~~for 2006 i~~was estimated at about 54.7 percent[5]. ~~Therefore, for 2006, the State-mandated diversion rate of 50 percent is assumed to have been met.~~ However, ~~The projection for 2006 waste generation is shown in Table 4-5. F~~for the purposes of the disposal capacity need analysis in this Chapter, ~~the~~a

[4] See Footnote 3.
[5] Diversion rate is based on preliminary information from CIWMB. It uses the default diversion rate for all jurisdictions plus the Taxable Sales deflator index value. The rate does not include transformation credit, or disposal modifications requested by jurisdictions.

diversion rate for 2006 ~~(49 percent~~ and 2007 ~~(48 percent)~~ were~~as~~ adjusted to 49 and 48 percent respectively (although the actual diversion rate was over 50 percent) in order to maintain consistency with the generation rate of 23,807,137 ~~presented~~as shown in **Table 4-5.** ~~(although the actual diversion rate was over 50 percent).~~ Also, the diversion rate is conservatively assumed as 50 percent from 2008 to 2021, except for scenarios with an increase in diversion rate.~~unless where noted otherwise.~~

4.5.2 Waste Generation Projection Methodology

A number of alternatives were considered for use in projecting countywide waste generation for the 2006 - 2021 planning period. These include use of the waste generation growth factors from each jurisdiction's Source Reduction and Recycling Element (SRRE), an adaptation of the CIWMB's Adjustment Methodology, and waste generation growth rates based on population growth projections.

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

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

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

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

4.5.2.1 Description of the Adjustment Methodology

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

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

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

The adjustment formula as adopted by the CIWMB is expressed as follows:

Estimated Solid Waste Generation for the Reporting Year =

= [(B-Y RWG) (RAF)] + [(B-Y NWG) (NAF)][6]

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

[6] The Estimated Solid Waste Generation for the Reporting Year formula and the variables in the formula are similar and consistent with the CIWMB Adjustment Method Formula.

CR = Consumer Price Sales 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 (UCLA, Long Term Forecast of Los Angeles County, June 2007);

- Employment is based on Countywide Employment Projection (UCLA, Long Term Forecast of Los Angeles County, June 2007; Employment data from UCLA only accounts for non-farm employment

- Taxable Sales is based on Countywide Taxable Sales (Source of Information is UCLA, Long Term Forecast of Los Angeles County, June 2007). Taxable Sales data from UCLA considers the real dollar value.

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

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

4.5.3 Waste Generation Projection Factors

Projections of solid waste generation for the 15-year planning period were calculated using the Adjustment Methodology developed by the CIWMB. The Methodology was adopted for projecting waste generation by utilizing projections of future population, employment, and taxable sales. The graph in **Figure 4-1** shows the resulting projections for population, employment, and taxable sales.

It also requires knowledge of the distribution of waste generation by sector (residential and non-residential). The use of this methodology to project waste generation requires projections of the above factors through the year 2021. The following discusses in more

detail the best available data, and how it was applied using the CIWMB Adjustment Methodology.

4.5.3.1 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 data provided in each jurisdiction's SRRE for the base year (1990) was used to determine the 1990 countywide waste generation distribution by sector. The distribution is as follows:

- 1990 Residential Waste Generation = 42 percent[7] of total waste generation
- 1990 Non-Residential Waste Generation = 58 percent[8] of total waste generation

The 1990 distribution by sector was used to approximate the distribution for the years 2006 through 2021.

4.5.3.2 Population Projections

The population projections for the County are available from the State Department of Transportation and University of California, Los Angeles (UCLA) for each year during the planning period. The UCLA Long-Term Forecast, which indicates an approximate increase in population of 7.4 percent towards the end of the 15-year planning period, was used to yield slightly more conservative projections. The graph in **Figure 4-1** shows the resulting projections for population, employment, and taxable sales.

4.5.3.3 Employment

The employment projections are available from the State Department of Transportation and UCLA for each year during the planning period. However, the UCLA projections and the State Department of Transportation projections are nearly identical, with UCLA projecting an employment increase of approximately 8.4 percent by the end of the 15-year planning period. UCLA projections were used because the data has been ~~more~~ recently updated when compared to ~~than~~ the data from the State Department of Transportation. The graph in **Figure 4-1** shows the resulting projections for population, employment, and taxable sales.

4.5.3.4 Taxable Sales

Countywide taxable sales projections are available from the UCLA Long-Term Forecast for

[7] Residential percentage means that portion of a jurisdiction 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 the same percentage used in the 2006 CSE Annual Report; however, all data and percentages are subject to change as new information becomes available.

[8] See footnote 3.

the 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 4-1** shows the resulting projections for population, employment, and taxable sales.

4.5.4 Waste Generation Projections for the Planning Period (2006-2021)

The resulting projections in waste generation, diversion, and disposal for each year of the 15-year planning period are shown in **Table 4-6.** This table also shows the needed Class III landfill disposal capacity for each year of the planning period. ~~assuming no additional transformation capacity will be developed.~~ The analysis assumes that the County will be responsible for management of solid waste generated in the County. As such, the analysis does not take credit for that portion of solid waste that is exported out-of-County and neither does it consider any capacity for imported solid waste to the County.

4.6 REMAINING PERMITTED IN-COUNTY DISPOSAL CAPACITY AS OF DECEMBER 31, 2006

4.6.1~~5~~ Class III Landfills

As a part of the preparation of this CSE and the 2006 Los Angeles County Countywide Integrated Waste Management Plan Annual Report (Annual Report), the Public Works~~Los Angeles County Department of Public Works~~ conducted a survey of landfills in the County to update its estimate of remaining combined permitted disposal capacity. 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, 2006, is estimated at 88 million tons (143 million cubic yards) **(see Table ~~4-9~~4-8).** As shown in **Table 4-7**, the cumulative permitted Class III landfill disposal capacity needs (approximately 96.7 million tons) will exceed this existing remaining permitted Class III landfill capacity (88 million tons) by the year 2014.

However, as discussed below, this simple comparison does not accurately predict when a shortfall in daily permitted disposal capacity may be experienced. Rather, one must 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 in order to be able to project as to when a disposal capacity need may occur.

4.6.2~~1~~ Inert Waste Landfills

As of December 31, 2006, there were 12 inert waste landfills in Los Angeles County (**See Table 4-4**)[9]**.** The total inert waste (including imports) disposed in the inert waste landfills in 2006 is 4.76 million tons. Pursuant to the Construction and Demolition Waste and Inert Debris Disposal Phase II Tiered Regulation[10], only inert waste landfills falling under the Full and Registration permit tiers (of the Solid Waste Facility permit tier) are considered "permitted" disposal facilities.

Azusa Land Reclamation and Peck Road Gravel Pit are the only two permitted inert waste landfills in Los Angeles County that fall under the Full or Registration tiers. The combined remaining disposal capacity for the permitted inert waste landfills (excluding Brand Park Landfill) is estimated at 46.33 million tons (51.09 million cubic yards) as shown in **Table 4-4**. Including the capacity of Brand Park Landfill, the total remaining permitted disposal capacity for all the permitted inert waste landfills is estimated at 47.02 million tons (51.43~~4~~ million cubic yards). ~~At~~In the 2006 average rate of disposal of 540 tpd (0.17 million tons per year), this total permitted inert waste landfill capacity would be exhausted in 279 years. Accordingly, the County has adequate permitted inert waste landfill capacity at this time.

~~In addition, t~~There are ~~seven~~nine Inert Debris Engineered Fill Operations (IDEFO)[11] in Los Angeles County, namely: Chandler's Palos Verdes Sand and Gravel, Hanson Aggregates (Livingston-Graham), Lower Azusa Reclamation Project, Montebello Land and Water Company, Nu-Way Arrow Reclamation, Nu-Way Live Oak Reclamation, Reliance Pit #2 (CalMat/Vulcan), ~~and~~ Sun Valley (CalMat/Vulcan), and Strathern Landfill. These operations handled approximately 4.56~~17~~ million tons of inert waste in the County in 2006 (**see Table 4-4**).

~~Furthermore, t~~Atkinson Brick Company~~here~~ is the only ~~are also three~~ inert waste landfill~~s~~ in Los Angeles County which ~~are~~is not placed in any C & D Phase II regulatory tier ~~(~~and is~~are~~ currently undergoing reclassification~~)~~. ~~, namely, Atkinson Brick Company, Montebello Land and Water Company and Strathern Landfill. In 2006, these operations~~Atkinson Brick Company handled approximately ~~42~~30,000 tons of inert material in the County in 2006 (**See Table 4-4**).

[9] Brand Park Landfill is currently permitted as a minor Class III landfill with full Solid Waste Facility Permit. However, Brand Park Landfill is ~~now~~currently only accepting inert waste. Therefore, for the purposes of this Chapter, Brand Park Landfill is listed under the ~~P~~permitted ~~i~~inert ~~W~~waste Landfill section of Table 4 -10 (Remaining Permitted Combined Disposal Capacity of Existing Solid Waste Disposal Facilities in Los Angeles County) but is not included in Table 4-4 (Disposal Capacity of Inert Waste Landfills located in Los Angeles County).

[10] 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 (Title 14 of CCR, Sections 17387-17390). These regulations placed inert waste landfills into four regulatory tiers, namely, Full Solid Waste Facility Permit, Registration tier permit, Enforcement Agency Notification, and Excluded Operations.

[11] 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.

4.6.32 Transformation Facilities

Currently, two transformation facilities operate in the County (Commerce Refuse-to-Energy Facility (CREF) and Southeast Resources Recovery Facility (SERRF)) and has a combined maximum permitted daily capacity of 3,240 tons (six days/week average, based on a maximum permitted annual capacity). It is expected that these two facilities will operate at their current permitted daily capacity during the planning period of (2006 through 2021). The owners/operators of these facilities have indicated that there are currently no plans for increasing the permitted daily capacity of these facilities.

The disposal capacity need analysis (see **Section 4.10**) assumes the average permitted daily capacity of 2,069[12] tpd as the estimated permitted remaining capacity for the two existing transformation facilities instead of 3,240 tpd, six days per week (i.e., their combined maximum permitted daily capacity, equivalent to approximately 1,075,360 tons per year), 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 by utilizing other strategies.

4.6.43 Conversion Technology Facilities

Currently, there are no conversion technology (CT) facilities in Los Angeles County. However, in order to encourage their development, 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. As part of their investigation, the County and ATAS have conducted a series of studies to evaluate conversion technologies. The studies resulted in the development of the Los Angeles County Conversion Technology Evaluation Report, (Phase I), adopted by the Task Force on August 18, 2005.

On October 18, 2007, the Los Angeles County Integrated Waste Management Task Force also adopted the Conversion Technology Evaluation Report, Phase II - Assessment, which identifies four viable conversion technology suppliers and four suitable locations for potential development of a demonstration project. This project will be a public-private partnership between the technology supplier, MRF owner/operator, and the County. A Request for Offers was released to the short listed companies in January 2008, and offers were received in August 2008. The offers wouldare currently being evaluated for ultimate recommendation to the Board of Supervisors.

[12] Based on the SWFP limit of 2,800 tons per week (expressed as a daily average, six days/week) for the CREF, and an EPA limit of 500,000 tons per year (expressed as a daily average, six days/week) for SERRF.

Concurrently, the City of Los Angeles is also conducting its own evaluation with the goal of developing conversion or other alternative technology facilities to manage the City's waste stream. The City's effort is highlighted by the adoption of the RENEW LA Resource Management Blueprint for the City of Los Angeles, which promotes alternative technologies.

Furthermore, on October 28, 2008, the Los Angeles County Board of Supervisors approved a Conditional Use Permit 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. This privately developed project, spearheaded by California-based BlueFire Ethanol and funded by a $40 million grant from the United States Department of Energy, is among the nation's first commercial scale plant that will 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.

These efforts demonstrate the promise and likelihood~~y~~ of further development of CT facilities in Los Angeles County and the Southern California region in the coming years. As a result~~such~~, the CSE's disposal capacity analysis ~~(see Table 4-21)~~ assumes that realistically up to 10,000 tpd **(see Table 4-15)** and optimistically up to 15,000 tpd **(see Table 4-18)** of solid waste could be managed through conversion technologies by the end of the 15-year planning period.

~~However, i~~It should be noted that at this time, the regulatory status of CT is still uncertain due to lack of legislative clarification on which conversion technologies should be categorized as solid waste disposal facilities, ~~and therefore~~or need to be included and listed in a CSE. However, the disposal capacity need analysis methodology and analysis **(see Tables 4-11 to 4-18)** is structured in a manner to allow flexibility such that future characterization of CT would not affect the disposal capacity need analysis. ~~Nevertheless, the way CT and alternative technology facility capacity is incorporated in the disposal capacity need analysis (see Tables 4-11 to 4-16) ensures that whether CT is ultimately considered as a disposal and/or non-disposal facility will not affect the result of the disposal capacity need analysis or the remaining daily disposal capacity need (shortfall).~~

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

4.6.5~~4~~ Biomass Processing Facilities

There are no existing or proposed new biomass processing facilities in Los Angeles County.

4.7 OUT-OF-COUNTY DISPOSAL

4.7.1 Introduction

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

4.7.2 Available Out-of-County Disposal Capacity

~~In 2005, approximately 2,177,097 tons (6,978 tpd) of solid waste were exported to out-of-County facilities .~~ Based on the disposal information from DRS reports and SWIMS, from 2000 to 2005[13], on the average, approximately 80 percent of the residual solid waste generated in Los Angeles County (that is destined for disposal) was disposed in Los Angeles County. The remaining 20 percent ~~(about 7,000 tpd)~~ were exported for disposal at out-of-County Class III landfills. The majority of the 20 percent average waste export was to surrounding counties. For example, Orange, Riverside and Ventura Counties respectively received eight, eight and two percent of the 20 percent waste exports. The remaining two percent of the exports were sent to landfills in Alameda, Fresno, Kern, King, San Bernardino, San Diego, Solano, and Stanislaus counties combined.

A list of the out-of-County landfills (in the respective counties) currently receiving waste exported from Los Angeles County are shown in Chapter 9, Table 9-7~~4-19~~ . Additionally, a list of all the out-of-County landfills (both in-State Class III landfills and out-of-State Subtitle D equivalent landfills) that are potentially viable for exporting Los Angeles County waste during the 15-year planning period are listed in Chapter 9, Tables 9-1 and 9-2~~ of Chapter 9~~.

The El Sobrante Landfill in Riverside County, which has a remaining capacity of 115 million tons, is permitted to receive 10,000 tpd of waste for disposal, and has an expected life of

[13] In 2005, approximately 2,177,097 tons (6,978 tpd) of solid waste were exported to out-of-County facilities for disposal.

about 35~~-40~~ years. This landfill received an average of 7,404 tpd in 2006, of which about 2,397 tpd were imported from Los Angeles County. Optimistically, the landfill could receive up to 4000 tpd from Los Angeles County through the 15-year planning period. ~~Also,~~ Orange County landfills ~~-~~received over 2,509 tpd in 2006, though, its waste importation agreements with various entities in Los Angeles County is expected to expire in 2015. The Simi Valley Landfill in Ventura County, which has a permitted daily throughput of 3,000 tpd and received an average of 522 tpd from Los Angeles County, is proposing an expansion that will extend its remaining life by 14 years.

In addition, Puente Hills Landfill Conditional Use Permit (CUP) No. 02-027-(4) requires the County Sanitation District (CSD) of Los Angeles County to develop a waste-by-rail system that would be consistent with the daily ~~maximum permitted~~ disposal capacity of Puente Hills Landfill (13,200 tpd) and meet specified milestones or demonstrate best faith efforts as specified in Condition 58 of the CUP. The milestones are as follows: (1) To begin development of at least one remote landfill by December 31, 2007, or be assessed a penalty of 2,000 tpd in Puente Hills Landfill's daily maximum permitted refuse intake capacity (i.e., 13,200 tpd); (2) For at least one remote landfill to become operational by December 31, 2008, or CSD would be assessed a penalty of 1,000 tpd reduction in Puente Hills Landfill's daily maximum permitted refuse intake capacity; and (3) For the waste-by-rail system to become operational by December 31, 2009, or CSD would be assessed a penalty of 2,000 tpd reduction every year thereafter in Puente Hills Landfill's maximum permitted refuse intake capacity.

~~For the purpose of the disposal need analysis in this Chapter, it is assumed that CSD will most likely meet the CUP milestones or the corresponding best faith efforts requirement. However, the final determination would be made by the Director of the Department of Public Works.~~

Moreover, the ~~County Sanitation Districts of Los Angeles County (~~CSD~~)~~ has completed acquisition of the Mesquite Regional Landfill in Imperial County, and has signed a purchase agreement for acquisition of the Eagle Mountain Landfill (subject to resolution of pending litigation).

The Mesquite Regional Landfill is permitted to accept up to 20,000 tpd with a capacity of 600 million tons. This provides the Landfill an approximate lifespan of 100 years. Construction of Mesquite Regional Landfill began in April 2007 and will be ready for operations ~~in~~by 2009. Construction of the rail spurs and rail yard necessary to receive waste-by-rail is expected to be completed and operational in 2011/2012. Once operational, the Mesquite Regional will provide additional out-of-County export capacity during the latter part of the 15-year planning period. Currently, the Mesquite Regional Landfill is only permitted to receive out-of-County waste-by-rail. However, the CSD has filed an application with Imperial County for a revised CUP to allow the landfill to receive 4,000 tpd via truck transport. ~~is currently working with Imperial County to revise the CUP of the Mesquite~~

~~Regional Landfill to allow up to an additional 4,000 tpd of out-of-County municipal solid waste from Los Angeles County to the landfill by truck. Moreover, 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 (see **Chapter 9, Section 9.5**).~~

Furthermore, ~~Similarly,~~ Eagle Mountain Landfill, located in Riverside County, owned by Kaiser Eagle Mountain, Inc., and operated by Mine Reclamation Corporation, is permitted to accept 10,000 tpd for the first 10 years with the option of increasing the daily limit to 20,000 tpd after a review of environmental performance. It's permitted capacity of 460 million tons and total capacity of 708~~0~~ million tons would give the Landfill an approximate lifespan of 100 years as well. However, Eagle Mountain Landfill Project is under litigation and therefore its capacity is not included in this Chapter's analysis of the disposal capacity need during the planning period.

~~As previously stated~~ Additionally, other existing and proposed new out-of-County landfills (located both in-State and out-of-State) that could accept solid waste from Los Angeles County also exist (~~S~~see **Chapter 9, Tables 9-1 and 9-2** ~~in Chapter 9~~). Based on the analysis in the Scenario **Tables 4-11 to 4-18~~6~~**, the current and future available disposal capacity provided by the out-of-County landfills (listed in **Tables 9-1 and 9-2 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:

a) The amount of export capacity (i.e., out-of-County disposal capacity) available for Los Angeles County, would continue to be available as indicated in **Table 4-21~~9~~** and **Tables 9-1 and 9-2** in Chapter 9.
b) The amount of current exports will steadily increase in concert with closure of in-County landfills as anticipated.

c) The ~~need for~~ development and siting of in-County alternative technology (e.g., conversion technology) facilities.

4.8. IN-COUNTY SOLID WASTE TRANSFER/PROCESSING CAPACITY[14]

Currently, there are approximately ~~65~~41 Materials Recovery Facilities (MRFs), 18 Transfer Stations ~~/~~(TS), and 6 Construction, Demolition and Inert Debris Processing Facilities (CDI) operating in Los Angeles County~~Countywide~~ which transport municipal solid waste inside and outside the County. ~~and has a permitted daily intake capacity of 74,122 tpd. Forty-one of the 65 MRF/TS are permitted major or large volume MRF/TS and has a total permitted~~

[14] Transfer/Processing Facility capacity discussed in this Chapter does not include recycling centers (per CIWMB 3-part test) and source separated C&D Waste Recycling facilities.

~~capacity of 68,754 tpd (see Chapter 4, Table 4-8).~~ The total permitted capacity for the 41 MRFs, 18 TS, and 6 CDIs is approximately 64,412 tpd, 3,169 tpd, and 3,672 tpd respectively. The combined total permitted capacity for the 41 MRFs, 18 TS, and 6 CDIs is 71,253 tpd. The average daily intake for the 41 MRFs, 18 TS, and 6 CDIs is approximately 26,870 tpd, 581 tpd, and 986 tpd respectively. The combined total permitted major MRFs and TS is approximately 64,156 tpd, with an average daily intake of approximately 27,009 tpd (see Chapter 9, Table 9-8).

However, as local waste disposal capacity options diminish within the County and with the anticipated development of Puente Hills Inter-modal Facility by CSD, MRF ~~/TS~~ operators may also elect to utilize rail transport to ship waste to out-of-County landfills for disposal **(see Chapter 9, Table 9-9~~4-8~~)**. Currently, there are 41 railroad yards in Los Angeles County ~~(see Table 9-8, Chapter 9)~~.

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 by sea or combination of various transportation modes are discussed in detail in Chapter 9 of this CSE (see Chapter 9, Section 9.5).

4.9 DISPOSAL CAPACITY NEED ANALYSIS

4.9.1 The 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 ~~along~~ for the various scenarios. To accurately predict when a shortfall in total disposal capacity will be experienced, one must 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~~eight scenarios described in **Section 4.11**, analyzed in **Tables 4-11 to 4-18~~6~~**, and summarized in **Tables 4-19~~7~~, 4-20 and 4-21~~18~~**. 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. Also, as previously indicated, the two transformation facilities in the County are expected to continue operating through the 15-year planning period, and there is currently adequate inert debris/waste landfill capacity in the County. Therefore, the disposal capacity need analysis primarily evaluates the need for additional Class III landfill capacity.

~~As indicated in Section 4.5 (Disposal Need Projections for the Planning Period 2006-2021), the Los Angeles County Department of Public Works (Public Works) has established a~~

~~process for tracking solid waste disposal quantities at landfills and transformation facilities, using the DRS, and SWIMS. Based on this and the information available from other regulatory agencies (including DRS data from counties receiving Los Angeles County's waste exports), Public Works has a continuing process of collecting and projecting data on waste disposal demand and available capacity.~~

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

4.9.2 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 (2006) based on the best available data and information, (e.g., SWIMS and latest available landfill survey, and CSE Annual Report data).

- **Planning period**: Determine the planning period (2006-2021) based on the best available data and information, (e.g., SWIMS and latest available landfill survey, and CSE Annual Report data). For the purpose of this CSE, the planning period begins in the year 2006 and ends in the year 2021.

- **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 (but excluding disposal at inert waste landfills), and (2) disposed at out-of-County disposal facilities during the base year (2006). (see **Section 4.5.1, and Tables 4-5 and 4-8).**

- **Base year solid waste generation**: Determine the amount of solid waste generated in the County in the base year using the actual base year disposal rate (but excluding disposal at inert waste landfills), assuming 50 percent diversion rate, and excluding imports. (see **Table 4-5).**

- **Solid waste generation projection**: Determine the amount of solid waste that would be generated for each year during the planning period using the CIWMB-approved adjustment methodology. (see **Sections 4.5.2 and 4.5.4, and Table 4-6**).

- **Solid waste generation projection factors**: Determine the solid waste projection generation factors based on the latest UCLA Long Term Forecast for Los Angeles County (dated June 2008) for populations, employment, and taxable sales; or other approved indices and forecasts. (see **Section 4.5.3, Table 4-6, and Figure 4-1**)

- **Solid waste disposal capacity requirement**: Determine the Class III landfill cumulative annual disposal capacity requirements (see **Table 4-7**) during the planning period, and the year the remaining permitted combined disposal capacity of existing solid waste disposal facilities in Los Angeles County would be exhausted, assuming 50 percent diversion rate, in-place density/conversion factor of 1,200 pounds per cubic yard, and subtracting the available transformation facility capacity. (see **Section 4.6, and Table 4-8**).

- **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. (see **Table 4-6 and 4-7**),

- **Disposal capacity need analysis scenarios:** Determine the various disposal capacity analysis scenarios (see **Section 4.10, Scenarios Nos. 1 to 8, and Table 4-10**).

- **Total daily disposal need:** For each scenario, determine the total daily disposal need based on the daily solid waste generation rate and the assumed diversion rates for the scenario.

- **Class III landfill daily disposal need**: For each scenario, determine the Class III landfill daily disposal need from the total daily disposal need by (1) adding daily waste import rate, (2) subtracting the maximum daily transformation facility capacity, and (3) subtracting the maximum available daily alternative technology capacity.

- **Total expected daily disposal tonnage capacity**: For each scenario, determine the total expected daily disposal tonnage capacity for the 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 the 9th column of Tables 4-11 to 4-18)**.

- **Total expected remaining permitted landfill capacity**: For each scenario, determine the total expected remaining permitted landfill 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 9-22 of Tables 4-11 to 4-18**). The total expected remaining permitted landfill capacity for the subsequent years is determined by using the total expected daily disposal tonnage capacity and assuming 312 operating days per year (i.e., 6-day per week average) (see the **26th column of Tables 4-11 to 4-18**) .

- **Daily export need**: For each scenario, determine the daily export need by subtracting the total expected daily disposal capacity from the Class III landfill disposal need (see **Tables 4-11 to 4-18**).

- **Available out-of-County disposal capacity**: Determine the current and future available out-of-County disposal capacity (i.e., export capacity) by summing up all the current and projected future export rate to the current out-of-County Class III landfills located in California that are potentially available to accept waste from jurisdictions within Los Angeles County during the planning period (see **Chapter 4, Table 4-22, and Chapter 9, Table 9-9**).

- **Remaining Daily Disposal Capacity Need (Shortfall)**: For each scenario, determine the remaining daily disposal capacity need (shortfall) by subtracting the export need from the available out-of-County disposal capacity.

~~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 along for the various scenarios. To accurately predict when a shortfall in total disposal capacity will be experienced, one must 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 4.11,** analyzed in **Tables 4-11 to 4-16,** and summarized in **Tables 4-17 and 4-18.** 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. Also, as previously indicated, the two transformation facilities in the County are expected to continue operating through the 15-year planning period, and there is currently adequate inert debris/waste landfill capacity in the County. Therefore, the disposal capacity need analysis primarily evaluates the need for additional Class III landfill capacity.~~

4.9.3 Class III Landfill Restrictions

Factors which severely hinder the accessibility of available Class III landfill permitted disposal capacity include: expiration of the Land Use Permit, Waste Discharge Requirements Permit, Solid Waste Facility Permit, ~~a~~Air ~~q~~Quality ~~p~~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 4-89**, Savage Canyon (Whittier) Landfill can only receive solid waste generated within the City of Whittier; Burbank Landfill only accepts waste generated within the City of Burbank, which is collected by City crews; Puente Hills Landfill is prohibited from receiving any waste originating from the City of Los Angeles and Orange County. Also, as previously indicated in section 4.7.2, Puente Hills Landfill may experience a reduction in permitted daily capacity if CSD fails to comply with Puente Hills Landfills' CUP Condition No. 58. Moreover, Calabasas and Scholl Canyon Landfills only accept solid waste generated within their defined wastesheds, and Brand Park and San Clemente Landfills are not open to the public.

Other critical factors which 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 continue to increase, the County will experience shortfalls in permitted daily disposal capacity.

4.10 DISPOSAL CAPACITY NEED ANALYSIS SCENARIOS

The disposal capacity need analysis presented below considers ~~six~~eight scenarios (see **Tables 4-11, 12, 13, 14, 15, ~~and~~ 16, 17 and 18**), which are briefly described and summarized in **Table 4-10**, and graphed in **Figures 4-2~~,~~ to 4-7~~5~~**.

The following major assumptions are made in all the ~~six~~eight scenarios:

- The base year is 2006.
- The planning period is 2006-2021.
- The disposal need analysis period is 2006-2021.
- The existing Class III landfill capacity is based on their permitted capacity as determined in the permit (i.e., SWFP, CUP/LUP, WDR and AQMD).

- Termination of landfill capacity is based on the most restrictive of the following factors: (1) exhaustion of permitted capacity, (2) completion pf approved fill design, (3) expiration of permit (e.g., CUP/LUP, SWFP, WDR, and AQMD), and (4) the closure date.

- Brand Park Landfill is permitted as a minor Class III landfill but is currently only accepting inert waste, and therefore excluded for the analysis.

- Expected daily tonnage rate of Bradley Landfill is based on the assumption that the landfill remained open until April 14, 2007.

- Inert waste landfills under the Inert Debris Engineered Fill Operations are not included in the disposal capacity need analysis.

- No new Class III landfill within Los Angeles County during the planning period.

- Full implementation of AB 939 waste diversion programs and the achievement of the waste diversion mandate of 50 percent during the planning period.

- Transformation facilities are assumed to operate at their average permitted daily capacity and their combined total capacity is shown in the scenario analysis tables.

- Expected daily tonnage rates for the Antelope Valley, Chiquita, Lancaster, Puente Hills, and Sunshine landfills are based on permitted daily disposal capacity, and for Burbank, Calabasas, Pebbly Beach, San Clemente, Scholl, and Whittier (Savage) landfills are based on the average daily disposal tonnages for the period of 1/1/06 to 12/31/06.

- There is~~was~~ no remaining daily disposal capacity need (shortfall) in 2006 and 2007 based on SWIMS and landfill survey data.

- The actual disposal, import, export, average daily intake, etc., data obtained from SWIMS and the landfill surveys were used for the years 2006 and 2007. The actual import~~export~~ tonnage for 2006 is 854 tpd and for 2007 is 754 tpd. The actual export rate for 2006 is 5,713 tpd and for 2007 is 5,715 tpd.

- Import waste quantities for 2008 and beyond are assumed to be at 900 tpd.

- Export need are considered part of the Class III landfill disposal need.

- The 2006 remaining permitted capacity for each of the Class III landfill are~~is~~ based on data presented in **Table 4-8~~9~~**.

- The solid waste exports from Los Angeles County will continue during the planning period regardless of the adequacy of in-County disposal capacity.

- The ~~County Sanitation Districts of Los Angeles County (~~CSD~~)~~ anticipates that the Puente Hills Intermodal Facility will be operational in 2011/2012. However, for the purposes of the disposal capacity need analysis in this Chapter, the 8,000 tpd to Mesquite landfill via the CSD's Waste-By-Rail system is conservatively assumed to be fully effective ~~in~~by 2014 after the closure of Puente Hills Landfill.

- The tons per day is assumed as the average daily tonnage, operating six days per week.

The following were also assumed for Scenarios 3, 4, 5 and 6:

- Scenarios 3, 4, 5, and 6 assume increased recycling efforts to achieve a 60 percent diversion rate by 2021.

- Scenarios 4, 5, and 6 include the use of alternative technology (e.g., conversion technology ~~facilities~~) facilities from 1,200 tpd in 2010 to up to 10,000 tpd in the year 2021. Whether conversion technology facilities are considered disposal or non-disposal facilities will not affect the result of the disposal capacity need analysis or the remaining daily disposal need (shortfall).

The disposal capacity need analysis scenario tables are organized as follows:

- Columns numbered 9~~1~~ through 22~~13~~ in Scenario **Tables 4-11 to 4-18~~6~~** lists how solid waste tonnages are distributed to each of the Class III landfills and the transformation facilities existing as of December 31, 2006.

- The remaining permitted capacity at the end of each year of the planning period for each Class III landfill is also shown in the columns numbered 9~~1~~ through 22~~13~~.

- The last sets of columns (columns 24 and 26) in **Tables 4-11 through 4-18~~6~~** shows the export need and projected remaining daily disposal capacity need (shortfall). The export need is shown as positive "(+)" values when there is a need for export, and negative "(-)" values when there is no need for export. The remaining daily disposal capacity need (shortfall) are shown as positive "(+)" values when there is an excess in the remaining daily disposal capacity, and negative "(-)" values when there is a need (shortfall) in the remaining daily disposal capacity.~~with excess~~

~~capacity shown in parenthesis~~

4.10.1 Scenario No. 1 (Worst Case Scenario) – Utilization of only existing in-County Class III landfills and transformation facilities during the planning period.

Scenario No. 1 assumes the following during the planning period: (1) use of only existing in-County permitted disposal facilities (excluding disposal at inert waste landfills); (2) no utilization of out-of-County landfill disposal capacity; (3) no new and/or proposed expansions of existing Class III landfills and/or transformation facilities will become operational within the County; (4) no increase in diversion rate beyond 50 percent; and (5) no capacity through ~~conversion and/or~~ alternative technology~~ies~~ (e.g., conversion technology). The analysis is presented in **Table 4-11** and summarized in **Tables 4-19~~17~~, 4-20 and 4-21~~8~~.**

Solid Waste Diversion Rate

Scenario No. 1 analysis also makes the following assumptions with respect to solid waste diversion rate:

- AB 939 Mandate

  The analysis assumes the achievement of AB 939 waste diversion mandate of 50 percent throughout the planning period. However, for 2006 and 2007, the diversion rate was adjusted to maintain consistency with the generation rate of 23,807,137 tons presented in **Table 4-5**, since there was no remaining daily disposal capacity need (shortfall) in 2006 and 2007.

Solid Waste Imports

Scenario No. 1 analysis also makes the following assumptions with respect to solid waste imports:

- The actual average waste import for the years 2006 and 2007 are 854 tpd and 764 tpd, respectively. The import quantities are assumed at 900 tpd for subsequent years through the end of the planning period in 2021.

Daily Export Need

The daily export need is listed in the 24th column of **Table 4-11 and summarized in Table 4-19.** Based on the export need analysis, the actual daily export rate for 2006 and 2007 were 5,713 tpd and 5,715 tpd, respectively. However, there is an increase in the daily export need from 2008 (5,825 tpd) to the end of the 15-year planning period, with a maximum

daily export need of approximately 44,326 tpd in 2021.

Solid Waste Exports Capacity (Available Out-of-County Disposal Capacity)

Scenario No. 1 analysis also makes the following assumptions with respect to solid waste exports:

- Currently Available Out-of-County Disposal~~Export~~ Capacity

  The analysis assumes no export of solid waste ~~out of Los Angeles County~~ to out-of-County disposal facilities during the 15-year planning period except for 2006 and 2007 in which the actual export data (5,713 tpd and 5,715 tpd, respectively) ~~a~~were used.

Remaining Daily Disposal Capacity Need (Shortfall)

The remaining daily disposal capacity need (shortfall) is listed in the last column of **Table 4-11.** Based on the~~is~~ analysis, there was no remaining daily disposal capacity need (shortfall) in 2006 and 2007. However, the remaining daily disposal capacity need (shortfall) increases from -5,825 tpd in 2008 to -44,326 tpd in 2021.

Therefore, additional disposal capacity (either in-County or out-of-County) would be necessary to provide for the solid waste disposal needs of the 88 cities and the ~~unincorporated~~ County unincorporated areas through the end of the 15-year planning period.

4.10.2 Scenario No. 2 (Status Quo Scenario) – Utilization of existing in-County Class III landfills and transformation facilities, and utilization of currently available out-of-County disposal capacity during the planning period.

Scenario No. 2 assumes the following during the planning period: (1) use of existing in-County permitted disposal facilities (excluding disposal at inert waste landfills); (2) utilization of currently available out-of-County landfill disposal capacity; (3) no new and/or proposed expansions of existing Class III landfills and/or transformation facilities will become operational within the County; (4) no increase in diversion rate beyond 50 percent; and (5) no capacity through alternative technologies (e.g., conversion technologies). The analysis is presented in **Tables 4-12** and summarized in **Tables 4-19~~7~~, 4-20 and 4-21~~8~~.**

Solid Waste Diversion Rate

Scenario No. 2 analysis also makes the following assumptions with respect to solid waste diversion rate:

- AB 939 Mandate

  The analysis assumes achievement of the AB 939 waste diversion mandate of 50 percent throughout the planning period. However, for 2006 and 2007, the diversion rate was adjusted to maintain consistency with the generation rate of 23,807,137 tons presented in **Table 4-5**, since there was no remaining daily disposal capacity (shortfall) in 2006 and 2007.

Solid Waste Imports

Scenario No. 2 analysis also makes the following assumptions with respect to solid waste imports:

- The actual average waste import for the years 2006 and 2007 are 854 tpd and 764 tpd, respectively. The import quantities are assumed at 900 tpd for subsequent years through the end of the planning period in 2021.

Daily Export Need

The daily export need is listed in the 24th column of **Table 4-12 and summarized in Table 4-19.** Based on the export need analysis, the actual daily export rate for 2006 and 2007 were 5,713 tpd and 5,715 tpd, respectively. However, there is an increase in the daily export need from 2008 (5,825 tpd) to the end of the 15-year planning period, with a maximum daily export need of approximately 44,326 tpd in 2021.

Solid Waste Exports Capacity (Available Out-of-County Disposal Capacity)

Scenario No. 2 analysis also makes the following assumptions with respect to solid waste exports:

- Currently Available Out-of-County ~~Export~~ Disposal Capacity

  The currently available out-of-County disposal capacity (i.e., export capacity) is assumed to include (1) the amount of Los Angeles County solid waste currently exported to the available existing out-of-County Class III landfills; (2) less the export amount due to the expiration of the export agreements to Orange County landfills (i.e., Olinda Alpha Sanitary landfill in 2013 and 2015, and both Frank R. Bowerman

Sanitary landfill and Prima Deshecha Canada Sanitary Landfills in 2015) subject to any future export agreements by Orange County; and (3) the additional 8,000 tpd in export capacity ~~via~~through the CSD's waste-by-rail system to Mesquite Regional Landfill by 2014[15].

Based on the available export capacity analysis (see **Alternative B in Table 4-22~~0~~**), the currently available solid waste export capacity was~~is~~ approximately 5,713 tpd (six days per week) in 2006 and 5,715 tpd in 2007 and remains at that level until 2013. Despite the expiration of the export agreement with Orange County landfills, the available export capacity increases to 12,873 tpd in 2014 due to the additional 8,000 tpd in export capacity ~~via~~through the CSD's waste-by-rail system to Mesquite Regional Landfill. In 2016, the export capacity will drop to 11,206 tpd and remain at that level through the end of the planning period (2021).

Remaining Daily Disposal Capacity Need (Shortfall)

The remaining daily disposal capacity need (shortfall) is listed in the last column of **Table 4-12.** Based on the~~is~~ analysis, there was no remaining daily disposal capacity need (shortfall) in 2006 and 2007. However, the remaining daily disposal capacity need (shortfall) increases from -110 tpd in 2008 to a maximum of -33,120 tpd in 2021.

Therefore, additional disposal capacity (either in-County or out-of-County) would be necessary to provide for the solid waste disposal needs of the 88 cities and the County unincorporated ~~County~~ areas through the end of the 15-year planning period.

4.10.3 Scenario No. 3 – Utilization of existing in-County Class III landfills and transformation facilities, utilization of currently available out-of-County disposal capacity, and realistic increase in ~~the~~ diversion rate (up to 60 percent by 2020) during the planning period.

Scenario 3 assumes the following during the planning period: (1) use of existing in-County permitted disposal facilities (excluding disposal at inert waste landfills); (2) utilization of currently available out-of-County landfill disposal capacity; (3) no new and/or proposed expansions of existing Class III landfills within the County;(4) realistic increase in diversion rate ~~beyond~~ (up to ~~5~~60 percent by 2020), and (5) no capacity through alternative technology (e.g., conversion technology~~ies~~). The analysis is presented in **Table 4-13**, and summarized in **Tables 4-19~~7~~, 4-20 and 4-21~~8~~**.

[15] Even though, Condition 58 of Puente Hills Landfill requires CSD waste-by-rail system to become operational by December 31, 2009, CSD has indicated that the waste-by-rail system will not become operational until 2011/2012. Also, it is further assumed, that the actual shipping of 8,000 tpd to Mesquite Regional Landfill from Puente Hills Intermodal Facility will not occur until the closure of Puente Hills by 2013.

Solid Waste Diversion Rate

Scenario No. 3 analysis also makes the following assumptions with respect to solid waste diversion rate:

- AB 939 Mandate

  The analysis assumes the achievement of AB 939 waste diversion mandate of 50 percent throughout the planning period. However, for 2006 and 2007, the diversion rate was adjusted to maintain consistency with the generation rate of 23,807,137 tons presented in **Table 4-5**, since there was no remaining daily disposal capacity need (shortfall) in 2006 and 2007.

- Realistic ~~i~~increase in Diversion Rate

  This scenario demonstrates the effect a~~n~~ realistic increase in diversion rate would have on the County's disposal needs. Starting from 2011, the diversion rate is assumed to increase to 51 percent and subsequently increase by one percent each year, reaching 60 percent by 2020~~the end of the planning period~~. An increase in diversion rate ~~would~~could be a tool the County may use to address ~~more easily meet its~~the disposal capacity needs. This increase in diversion rate represents a general trend of major jurisdictions within the County and State as a whole, but does not reflect any particular jurisdiction's policy. As a result, ~~F~~future programs geared toward diversion are expected to take on greater significance during the planning period.~~, as the County nears the end of the planning period.~~

Solid Waste Imports

Scenario No. 3 analysis also makes the following assumptions with respect to solid waste imports:

- The actual average waste import for the years 2006 and 2007 are 854 tpd and 764 tpd, respectively. The import quantities are assumed at 900 tpd for subsequent years through the end of the planning period in 2021.

Daily Export Need

The daily export need is listed in the 24th column of **Table 4-13 and summarized in Table 4-19.** Based on the export need analysis, the actual daily export rate for 2006 and 2007 were 5,713 tpd and 5,715 tpd, respectively. However, there is an increase in the daily export need from 2008 (5,825 tpd) to the end of the 15-year planning period, with a maximum daily export need of approximately 34,605 tpd in 2021.

Solid Waste Exports Capacity (Available Out-of-County Disposal Capacity)

Scenario No. 3 analysis also makes the following assumptions with respect to solid waste exports:

- Currently Available Out-of-County Disposal Export Capacity

  The currently available out-of-County disposal capacity (i.e., export capacity) is assumed to include (1) the amount of Los Angeles County solid waste currently exported to the existing out-of-County Class III landfills; (2) the expiration of the export agreements to Orange County landfills (Olinda Alpha Sanitary landfill in 2013, and both Frank R. Bowerman Sanitary landfill and Prima Deshecha Canada Sanitary landfills in 2015) subject to any future export agreements by Orange County; (3) the additional 8,000 tpd in export via the CSD's waste-by-rail system to Mesquite Regional Landfill by 2014.

  Based on the available export capacity analysis (see **Alternative B in Table 4-220**) the currently available solid waste export capacity is approximately 5,713 tpd (six days per week) in 2006 and 5,715 tpd in 2007 and remains at that level until 2013. Despite the expiration of the export agreement with Orange County landfills, the available export capacity increases to 12,873 tpd in 2014 due to the additional 8,000 tpd in export via the CSD's waste-by-rail system to Mesquite Regional Landfill. In 2016, the export capacity drops to 11,206 tpd and remains at that level through the end of the planning period (2021).

Remaining Daily Disposal Capacity Need (Shortfall)

The remaining daily disposal capacity need (shortfall) is listed in the last column of **Table 4-13.** Based on theis analysis, there was no remaining daily disposal capacity need (shortfall) in 2006 and 2007. However, the remaining daily disposal capacity need (shortfall) varies from -110 tpd in 2008 to a maximum of -23,399 tpd in 2021.

Therefore, except for the years 2006 and 2007, additional disposal capacity (either in-County or out-of-County), would be required in order to adequately provide for the solid waste disposal needs of the 88 cities and the County unincorporated County areas during the 15-year planning period.

4.10.4 Scenario No. 4 – Utilization of existing in-County Class III landfills and transformation facilities, utilization of currently available out-of-County disposal capacity, realistic increase inthe diversion rate (up to 60 percent by 2020) and realistic development of alternative technology (e.g., conversion technology) facilityies capacity (up to 10,000 tpd by 2021)

during the planning period.

Scenario 4 assumes the following during the planning period: (1) use of existing in-County permitted disposal facilities (excluding disposal at inert waste landfills); (2) utilization of currently available out-of-County landfill disposal capacity; (3) no new and/or proposed expansion of existing Class III landfills and/or transformation facilities will become operational within the County; (4) realistic increase in diversion rate ~~beyond~~(up to ~~5~~60 percent by 2020); and (5) realistic development of ~~up to 10,000 tpd in~~ alternative technology (e.g. conversion technology)facility~~ies~~ capacity (up to 10,000 tpd by 2021). The analysis is presented in **Table 4-14** and summarized in **Tables 4-19~~7~~, 4-20 and 4-21~~8~~**.

Solid Waste Diversion Rate

The Scenario No. 4 analysis also makes the following assumptions with respect to solid waste diversion rate:

- AB 939 Mandate

  The analysis assumes the achievement of AB 939 waste diversion mandate of 50 percent throughout the planning period. However, for 2006 and 2007, the diversion rate was adjusted to maintain consistency with the generation rate of 23,807,137 tons presented in **Table 4-5**, since there was no remaining daily disposal capacity need (shortfall) in 2006 and 2007**.**

- Realistic ~~i~~increase in Diversion Rate

  This scenario demonstrates the effect a~~n~~ realistic increase in diversion would have on the County's disposal needs. Starting from 2011, the diversion rate is assumed to increase to 51 percent and subsequently increase by one percent each year, reaching 60 percent by the end of the planning period. An increase in diversion could~~would~~ be a tool the County may use to address ~~better meet its~~the disposal capacity needs. This increase in diversion represents a general trend of major jurisdictions within the County and State as a whole, but does not reflect any particular jurisdiction's policy. As a result, ~~F~~future programs geared toward diversion are expected to take on greater significance during the planning period.~~, as the County nears the end of the planning period.~~

Solid Waste Imports

Scenario No. 4 analysis also makes the following assumptions with respect to solid waste imports:

- The actual average waste import for the years 2006 and 2007 are 854 tpd and 764 tpd, respectively. The import quantities are assumed at 900 tpd for subsequent years through the end of the planning period in 2021.

Realistic Alternative Technology Facility Capacity

The Scenario No. 4 analysis also makes the following assumptions with respect to alternative technology capacity:

- The scenario assumes that conversion and other alternative technology facility~~ies~~ will be used to manage about 1,200 tpd starting 2010 and up to 10,000 tpd by 2021.

Daily Export Need

The daily export need is listed in the 24th column of **Table 4-14 and summarized in Table 4-19.** Based on the export need analysis, the actual daily export rate for 2006 and 2007 were 5,713 tpd and 5,715 tpd, respectively. However, there is a net increase in the daily export need from 5,825 tpd (2008) to 24,605 tpd at the end of the planning period (2021) with a maximum daily export need of 29,471 tpd in 2015.

Solid Waste Export~~s~~ Capacity (Available Out-of-County Disposal Capacity)

Scenario No. 4 analysis also makes the following assumptions with respect to solid waste exports:

- Currently Available Out-of-County Disposal~~Export~~ Capacity

  The currently available out-of-County disposal capacity (i.e., export capacity) is assumed to include (1) the amount of Los Angeles County solid waste currently exported to the existing out-of-County Class III landfills; (2) the expiration of the export agreements to Orange County landfills (Olinda Alpha Sanitary landfill in 2013 and 2015, and both Frank R. Bowerman Sanitary landfill and Prima Deshecha Canada Sanitary Landfills in 2015) subject to any future export agreements by Orange County; and (3) the additional 8,000 tpd in export via the CSD's waste-by-rail system to Mesquite Regional Landfill by 2014.

Based on the available export capacity analysis (see **Alternative B in Table 4-220**) the currently available solid waste export capacity is approximately 5,713 tpd (six days per week) in 2006 and 5,715 tpd in 2007, and remains at that level until 2013. Despite the expiration of the export agreement with Orange County landfills, the available export capacity increases to 12,873 tpd in 2014 due to the additional 8,000 tpd in export via the CSD's waste-by-rail system to Mesquite Regional Landfill. In 2016, the export capacity drops to 11,206 tpd and remains at that level through the end of the planning period (2021).

Remaining Daily Disposal Capacity Need (Shortfall)

The remaining daily disposal capacity need (shortfall) is listed in the last column of **Table 4-14.** Based on the~~is~~ analysis, there was no remaining daily disposal capacity need (shortfall) in 2006 and 2007. However, the remaining daily disposal capacity need (shortfall) varies from (-)110 tpd in 2008 to (-)13,399 tpd in 2021 with a maximum of 17,105 tpd in 2016.

Therefore, except in 2006 and 2007, additional disposal capacity (either in-County or out-of-County)~~,~~ would be required in order to adequately provide for the solid waste disposal needs of the 88 cities and the County unincorporated ~~County~~ areas during the 15-year planning period.

4.10.5 Scenario No. 5 – Utilization of existing in-County Class III landfills and transformation facilities, utilization of currently available out-of-County disposal capacity, realistic increase in~~of the~~ diversion rate (up to 60 percent by 2020), realistic development of alternative technology~~ies~~ (e.g., conversion technology ~~facility~~) facility capacity (up to 10,000 tpd by 2021) and development of all proposed in-County Class III landfill expansions during the planning period.

Scenario 5 assumes the following during the planning period: (1) use of existing in-County permitted disposal facilities (excluding disposal at inert waste landfills); (2) utilization of currently available out-of-County landfill disposal capacity; (3) no new Class III landfills within the County; (4) realistic increase in diversion rate ~~beyond~~ (up to ~~5~~60 percent by 2020); (5) realistic development of alternative technology (e.g., conversion technology) facility~~ies~~ capacity (up to 10,000 tpd by 2021); and (6) development of all proposed in-County Class III landfill expansions. The analysis is presented in **Table 4-15** and summarized in **Tables 4-197, 4-20 and 4-218**.

Solid Waste Diversion Rate

Scenario No. 5 analysis also makes the following assumptions with respect to solid waste diversion rate:

- AB 939 Mandate

  The analysis assumes the achievement of AB 939 waste diversion mandate of 50 percent throughout the planning period. However for 2006 and 2007, the diversion rate was adjusted to maintain consistency with the generation rate of 23,807,137 tons presented in **Table 4-5**, since there was no remaining daily disposal capacity need (shortfall) in 2006 and 2007.

- Realistic ~~I~~increase in Diversion Rate

  This scenario demonstrates the effect a~~n~~ realistic increase in diversion would have on the County's disposal needs. Starting from 2011, the diversion rate is assumed to increase to 51 percent and subsequently increase by one percent each year, reaching 60 percent by the end of the planning period. An increase in diversion could~~would~~ be a tool the County may use to address ~~more easily meet its~~the disposal capacity needs. This increase in diversion represents a general trend of major jurisdictions within the County and State as a whole, but does not reflect any particular jurisdiction's policy. As a result, ~~F~~future programs geared toward diversion are expected to take on greater significance during the planning period.~~, as the County nears the end of the planning period.~~

Solid Waste Imports

Scenario No. 5 analysis also makes the following assumptions with respect to solid waste imports:

- The actual average waste import for the years 2006 and 2007 are 854 tpd and 764 tpd, respectively. The import quantities are assumed at 900 tpd for subsequent years through the end of the planning period in 2021.

Realistic Alternative Technology Facility Capacity

Scenario No. 5 analysis also makes the following assumptions with respect to alternative technology capacity:

- The scenario assumes that conversion and other alternative technology facilities will be used to manage about 1,200 tpd starting 2010 and up to 10,000 tpd by 2021.

In-County Class III landfill expansion

Scenario No. 5 analysis also makes the following assumptions with respect to in-County

Class III landfill expansion:

- The scenario also assumes that all proposed expansions of existing in-County Class III landfills as identified in Chapter 7 (see **Section 7.5.2 and Table 7-3)** will be successfully permitted and developed to their full capacity, as proposed.

Daily Export Need

The daily export need is listed in the 24th column of **Table 4-15 and summarized in Table 4-19.** Based on the export need analysis, the actual daily export rate for 2006 and 2007 were 5,713 tpd and 5,715 tpd, respectively. However, there is a net decrease in the daily export need from 5,390 tpd (2008) to a negative export need of -2,835 tpd in 2013. Also, there is a maximum export need of 9,848 tpd in 2014 and subsequent decrease in export need up to 2,187 tpd at the end of the planning period (2021).

Solid Waste Exports Capacity (Available Out-of-County Disposal Capacity)

Scenario No. 5 analysis also makes the following assumptions with respect to solid waste exports:

- Currently Available Out-of-County Disposal~~Export~~ Capacity

  The currently available out-of-County disposal capacity (i.e., export capacity) is assumed to include (1) the amount of Los Angeles County solid waste currently exported to the existing out-of-County Class III landfills; (2) the expiration of the export agreements with Orange County landfills (Olinda Alpha Sanitary landfill in 2013 and 2015, and both Frank R. Bowerman Sanitary landfill and Prima Deshecha Canada Sanitary Landfills in 2015) subject to any future export agreements by Orange County; and (3) the additional 8,000 tpd in export via the CSD's waste-by-rail system to Mesquite Regional Landfill by 2014.

  Based on the available export capacity analysis (see **Alternative B in Table 4-220**) the currently available solid waste export capacity was approximately 5,713 tpd (six days per week) in 2006 and 5,715 in 2007, and remains at that level until 2013. Despite the expiration of the export agreement with Orange County landfills, the available export capacity increases to 12,873 tpd in 2014 due to the additional 8,000 tpd in export via the CSD's waste-by-rail system to Mesquite Regional Landfill. In 2016, the export capacity drops to 11,206 tpd and remains at that level through the end of the planning period (2021).

Remaining Daily Disposal Capacity Need (Shortfall)

The remaining daily disposal capacity need (shortfall) is listed in the last column of **Table 4-15.** Based on the~~is~~ analysis, there was no remaining daily disposal capacity need (shortfall) in 2006 and 2007. However, an excess in remaining daily disposal capacity will be experienced from 2008 (325 tpd) to the end of the 15-year planning period, with a maximum excess capacity of ~~where it becomes~~ approximately 9,019 tpd in 2021. ~~The excess in remaining daily disposal capacity varies from 325 tpd in 2008 to a maximum excess of 9,019 tpd in 2021.~~

Therefore, except for the years 2006 and 2007, additional disposal capacity (either in-County or out-of-County)~~,~~ would not be required in order to adequately provide for the solid waste disposal needs of the 88 cities and the County unincorporated ~~County~~ areas during the 15-year planning period.

4.10.6 Scenario No. 6 (Best Case Scenario) – Utilization of existing in-County Class III landfills and transformation facilities, utilization of currently available out-of-County disposal capacity, realistic increase in~~of the~~ diversion rate (up to 60 percent by 2020), realistic development of alternative technology~~ies~~ (e.g., conversion technology ~~facilities~~) facility capacity (up to 10,000 tpd by 2021), development of all proposed in-County Class III landfill expansions, and utilization of future available out-of-County disposal facility capacity during the planning period.

Scenario 6 assumes the following during the planning period: (1) use of existing in-County permitted disposal facilities (excluding disposal at inert waste landfills); (2) utilization of currently available out-of-County landfill disposal capacity by including out-of-County disposal capacities from proposed implementation of waste-by-truck to Mesquite Regional Landfill and proposed expansions of the out-of-County landfills; (3) no new Class III landfills within the County; (4) realistic increase in diversion rate ~~beyond~~(up to ~~5~~60 percent by 2020); (5) realistic development of ~~up to 10,000 tpd~~ alternative technology (e.g., conversion technology) facility~~ies~~ capacity (up to 10,000 tpd by 2021); (6) development of all proposed in-County Class III landfill expansions; and (7) utilization of ~~additional~~ future available out-of-County disposal facility capacity. The analysis is presented in **Table 4-16** and summarized in **Tables 4-19~~7~~, 4-20 and 4-21~~8~~.**

Solid Waste Diversion Rate

The Scenario No. 6 analysis makes the following assumptions with respect to solid waste diversion rate:

- AB 939 Mandate

The analysis assumes the achievement of AB 939 waste diversion mandate of

50 percent throughout the planning period. However, for 2006 and 2007, the diversion rate was adjusted to maintain consistency with the generation rate of 23,807,137 tons presented in **Table 4-5**, since there was no remaining daily disposal capacity need (shortfall) in 2006 and 2007.

- Realistic ~~i~~increase in Diversion Rate

  This scenario demonstrates the effect a~~n~~ realistic increase in diversion would have on the County's disposal needs. Starting from 2011, the diversion rate is assumed to increase to 51 percent and subsequently increase by one percent each year, reaching 60 percent by the end of the planning period. An increase in diversion ~~would~~could be a tool the County may use to address~~more easily meet its~~ the disposal capacity needs. This increase in diversion represents a general trend of major jurisdictions within the County and State as a whole, but does not reflect any particular jurisdiction's policy. As a result, ~~F~~future programs geared toward diversion are expected to take on greater significance during the planning area.~~, as the County nears the end of the planning period.~~

Solid Waste Imports

Scenario No. 6 analysis makes the following assumptions with respect to solid waste imports:

- The actual average waste import for the years 2006 and 2007 are 854 tpd and 764 tpd, respectively. The import quantities are assumed at 900 tpd for subsequent years through the end of the planning period in 2021.

Realistic Alternative Technology Facility Capacity

The Scenario No. 6 analysis also makes the following assumptions with respect to alternative technology capacity:

- This scenario assumes that conversion and other alternative technology facilities will be used to manage about 1,200 tpd starting 2010 and up to 10,000 tpd by 2021.

In-County Class III landfill expansion

The Scenario No. 6 analysis also makes the following assumptions with respect to in-County Class III landfill expansions:

- The scenario also assumes that all proposed expansions of existing in-County Class

III landfills as identified in Chapter 7 (see **Section 7.5.2 and Table 7-3)** will be successfully permitted and developed to their full capacity, as proposed.

Daily Export Need

The daily export need is listed in the 24th column of **Table 4-16 and summarized in Table 4-19.** Based on the export need analysis, the actual daily export rate for 2006 and 2007 were 5,713 tpd and 5,715 tpd, respectively. However, there is a net decrease in the daily export need from 5,390 tpd in 2008 to a maximum negative export need of (-)2,835 tpd in 2013. In 2014, a maximum export need of 9,848 tpd is reached, and decreases to 2,187 tpd at the end of the planning period (2021).

Solid Waste Export~~s~~ Capacity (Available Out-of-County Disposal Capacity)

Scenario No. 6 analysis makes the following assumptions with respect to solid waste exports:

- Currently Available Out-of-County Disposal~~Export~~ Capacity

  The currently available out-of-County disposal capacity (i.e., export capacity) is assumed to include (1) the amount of Los Angeles County solid waste currently exported to the existing out-of-County Class III landfills; (2) the expiration of the export agreements to Orange County landfills (Olinda Alpha Sanitary landfill in 2013 and 2015, and both Frank R. Bowerman Sanitary landfill and Prima Deshecha Canada Sanitary Landfills in 2015) subject to any future export agreements by Orange County; and (3) the additional 8,000 tpd in export via the CSD's waste-by-rail system to Mesquite Regional Landfill by 2014.

- Future Available Out-of-County Disposal~~Export~~ Capacity

  The future~~currently~~ available out-of-County disposal capacity (i.e., export capacity) is also assumed to increase through (a) additional 4,000 tpd from CSD's waste-by-truck to Mesquite Regional Landfill by 2010, and (b) assuming development of proposed expansions of existing out-of-County Class III landfills and/or transformation facilities will become operational during the 15-year planning period.

  Based on the available export capacity analysis (see **Alternative D in Table 4-22~~0~~**) the currently available solid waste export capacity is approximately 5,713 tpd (six days per week) in 2006 and 5,715 tpd in 2007, and remains at that level until 2010. The export capacity increases to 9,715 tpd in 2010 due to the additional 4,000 tpd from waste-by-truck to Mesquite Regional Landfill, and remains at same level until

2013. Despite the expiration of the export agreement with Orange County landfills, the available export capacity increases to 16,873 tpd in 2014 due to the additional 8,000 tpd in export via the CSD's waste-by-rail system to Mesquite Regional Landfill. In 2016, the export capacity drops to 15,206 tpd and remains at that level through the end of the planning period (2021).

Remaining Daily Disposal Capacity Need (Shortfall)

The remaining daily disposal capacity need (shortfall) is listed in the last column of **Table 4-16.** Based on the~~is~~ analysis, there was no remaining daily disposal capacity need (shortfall) in 2006 and 2007. However, an excess in remaining daily disposal capacity will be experienced from 2008 (325 tpd) to the end of the 15-year planning period, with a maximum excess capacity of ~~where it becomes~~ approximately 13,019 tpd in 2021. ~~The excess in remaining daily disposal capacity varies from 325 tpd in 2008 to a maximum excess of 13,019 tpd in 2021.~~

Therefore, additional disposal capacity (either in-County or out-of-County) would not be required in order to adequately provide for the solid waste disposal needs of the 88 cities and the County unincorporated ~~County~~ areas during the 15-year planning period.

4.10.7 Scenario No. 7 (Optimistic Case Scenario – Optimistic increase in diversion rate) – Utilization of existing in-County Class III landfills and transformation facilities, utilization of currently available out-of-County disposal capacity, optimistic increase in diversion rate (up to 75 percent by 2020), realistic development of alternative technology (e.g., conversion technology) facility capacity (up to 10,000 tpd by 2021), development of all proposed in-County Class III landfill expansions, and utilization of future available out-of-County disposal facility capacity during the planning period.

Scenario 7 assumes the following during the planning period: (1) use of existing in-County permitted disposal facilities (excluding disposal at inert waste landfills); (2) utilization of currently available out-of-County landfill disposal capacity; (3) no new Class III landfills within the County; (4) optimistic increase in diversion rate (60 percent by 2013 and up to 75 percent by 2020); (5) realistic development of alternative technology (e.g., conversion technology) facility capacity (up to 10,000 tpd by 2021); (6) development of all proposed in-County Class III landfill expansions; and (7) utilization of future available out-of-County disposal facility capacity. The analysis is presented in **Table 4-17** and summarized in **Tables 4-19, 4-20 and 4-21.**

Solid Waste Diversion Rate

The Scenario No. 7 analysis makes the following assumptions with respect to solid waste diversion rate:

- AB 939 Mandate

  The analysis assumes the achievement of AB 939 waste diversion mandate of 50 percent throughout the planning period. However, for 2006 and 2007, the diversion rate was adjusted to maintain consistency with the generation rate of 23,807,137 tons presented in **Table 4-5**, since there was no remaining daily disposal capacity need (shortfall) in 2006 and 2007.

- Optimistic Increase in Diversion Rate

  This Scenario assumes a more optimistic increase in diversion rate during the planning period than the diversion rate assumed in Scenario No. 3 (**see Section 4.10.3).** The optimistic increase in diversion rate is based on consideration of (1) the previously proposed State legislation that would have mandated an increase in diversion rate, such as SB 1020, AB 1390, and SB 1252. The SB 1020 had proposed an increase in diversion rate to 60 percent by 2012 and 75 percent by 2020; and AB 1390 and SB 1252 had proposed an increase in diversion rate to 60 percent by 2015 and 75 percent by 2020), and (2) the recent City of Los Angeles' Mayoral directive to increase the City's overall diversion rate to 75 percent by 2013.

  As a result, this scenario assumes an increase in diversion rate up to 60 percent by 2012 and 75 percent by 2020 in a manner to minimize the amount of export to out-of-County disposal facilities. A more optimistic increase in diversion rate could be a tool the County may use to address the disposal capacity needs. As a result, future programs geared toward diversion are expected to take on greater significance during the planning period.

Solid Waste Imports

Scenario No. 7 analysis makes the following assumptions with respect to solid waste imports:

- The actual average waste import for the years 2006 and 2007 are 854 tpd and 764 tpd, respectively. The import quantities are assumed at 900 tpd for subsequent years through the end of the planning period in 2021.

Realistic Alternative Technology Facility Capacity

The Scenario No. 7 analysis also makes the following assumptions with respect to alternative technology capacity:

- This scenario assumes that conversion and other alternative technology facilities will be used to manage about 1,200 tpd starting 2010 and up to 10,000 tpd by 2021.

In-County Class III landfill expansion

The Scenario No. 7 analysis also makes the following assumptions with respect to in-County Class III landfill expansions:

- The scenario also assumes that all proposed expansions of existing in-County Class III landfills as identified in Chapter 7 (see **Section 7.5.2 and Table 7-3)** will be successfully permitted and developed to their full capacity, as proposed.

Daily Export Need

The daily export need is listed in the 24th column of **Table 4-17** and summarized in **Table 4-19.** Based on the export need analysis, the actual daily export rate for 2006 and 2007 were 5,713 tpd and 5,715 tpd, respectively. Also, there is a daily export need in 2008 (3,901 tpd) and 2009 (2,203 tpd). However, there is a net increase in negative daily export need from 2010 (-5,959 tpd) to the end of the planning period (-12,206 tpd) in 2021.

Solid Waste Export Capacity (Available Out-of-County Disposal Capacity)

Scenario No. 7 analysis makes the following assumptions with respect to solid waste exports:

- Currently Available Out-of-County Disposal Capacity

  The currently available out-of-County disposal capacity (i.e., export capacity) is assumed to include (1) the amount of Los Angeles County solid waste currently exported to the existing out-of-County Class III landfills; (2) the expiration of the export agreements to Orange County landfills (Olinda Alpha Sanitary landfill in 2013 and 2015, and both Frank R. Bowerman Sanitary landfill and Prima Deshecha Canada Sanitary Landfills in 2015) subject to any future export agreements by Orange County; and (3) the additional 8,000 tpd in export via the CSD's waste-by-rail system to Mesquite Regional Landfill by 2014.

- Future Available Out-of-County Disposal Capacity

  The future available out-of-County disposal capacity (i.e., export capacity) is also assumed to increase through (a) additional 4,000 tpd from CSD's waste-by-truck to Mesquite Regional Landfill by 2010, and (b) assuming development of proposed

expansions of existing out-of-County Class III landfills and/or transformation facilities will become operational during the 15-year planning period.

Based on the available export capacity analysis (see **Alternative D in Table 4-22**) the currently available solid waste export capacity is approximately 5,713 tpd (six days per week) in 2006 and 5,715 tpd in 2007, and remains at that level until 2010. The export capacity increases to 9,715 tpd in 2010 due to the additional 4,000 tpd from waste-by-truck to Mesquite Regional Landfill, and remains at same level until 2013. Despite the expiration of the export agreement with Orange County landfills, the available export capacity increases to 16,873 tpd in 2014 due to the additional 8,000 tpd in export via the CSD's waste-by-rail system to Mesquite Regional Landfill. In 2016, the export capacity drops to 15,206 tpd and remains at that level through the end of the planning period (2021).

Remaining Daily Disposal Capacity Need (Shortfall)

The remaining daily disposal capacity need (shortfall) is listed in the last column of **Table 4-17.** Based on the analysis, there was no remaining daily disposal capacity need (shortfall) in 2006 and 2007. However, an excess in remaining daily disposal capacity will be experienced from 2008 (1,814 tpd) to the end of the planning period, with maximum excess capacity of approximately 27,412 tpd in 2021.

Therefore, additional disposal capacity (either in-County or out-of-County) would not be required in order to adequately provide for the solid waste disposal needs of the 88 cities and the County unincorporated areas during the 15-year planning period.

4.10.8 Scenario No. 8 (Best Case – Optimistic Alternative Technology Facility Capacity) – Utilization of existing in-County Class III landfills and transformation facilities, utilization of currently available out-of-County disposal capacity, realistic increase in diversion rate (up to 60 percent by 2020), optimistic development of alternative technology (e.g., conversion technology) facility capacity (up to 15,000 tpd by 2021), development of all proposed in-County Class III landfill expansions, and utilization of future available out-of-County disposal facility capacity during the planning period.

Scenario 8 assumes the following during the planning period: (1) use of existing in-County permitted disposal facilities (excluding disposal at inert waste landfills); (2) utilization of currently available out-of-County landfill disposal capacity by including out-of-County disposal capacities from proposed implementation of waste-by-truck to Mesquite Regional Landfill and proposed expansions of the out-of-County landfills; (3) no new Class III landfills within the County; (4) realistic increase in diversion rate (up to 60 percent by 2020); (5) optimistic development of alternative technology (e.g., conversion technology) facility capacity (up to 15,000 tpd by 2021); (6) development of all proposed in-County Class III

landfill expansions; and (7) utilization of additional future available out-of-County disposal facility capacity. The analysis is presented in **Table 4-18** and summarized in **Tables 4-19, 4-20 and 4-21.**

Solid Waste Diversion Rate

The Scenario No. 8 analysis makes the following assumptions with respect to solid waste diversion rate:

- AB 939 Mandate

  The analysis assumes the achievement of AB 939 waste diversion mandate of 50 percent throughout the planning period. However, for 2006 and 2007, the diversion rate was adjusted to maintain consistency with the generation rate of 23,807,137 tons presented in **Table 4-5**, since there was no remaining daily disposal capacity need (shortfall) in 2006 and 2007.

- Realistic increase in Diversion Rate

  This scenario demonstrates the effect a realistic increase in diversion would have on the County's disposal needs. Starting from 2011, the diversion rate is assumed to increase to 51 percent and subsequently increase by one percent each year, reaching 60 percent by the end of the planning period. An increase in diversion could be a tool the County may use to address the disposal capacity needs. Also, the increase in diversion rate represents a general trend of major jurisdictions within the County and State as a whole, but does not reflect any particular jurisdiction's policy. As a result, future programs geared toward diversion are expected to take on greater significance during the planning period.

Solid Waste Imports

Scenario No. 8 analysis makes the following assumptions with respect to solid waste imports:

- The actual average waste import for the years 2006 and 2007 are 854 tpd and 764 tpd, respectively. The import quantities are assumed at 900 tpd for subsequent years through the end of the planning period in 2021.

Optimistic Alternative Technology Facility Capacity

In addition to the alternative technology facility capacity as discussed in Scenario 4 (**see Section 4.10.4**), this scenario demonstrates the effect of a more optimistic increase in the

development of alternative technology facility capacity during the planning period and the impact it would have on the County's disposal needs. Scenario No. 8 analysis also makes the following assumptions with respect to alternative technology facilities capacity:

- This scenario assumes that conversion and other alternative technology facilities capacity will be used to manage about 1,200 tpd starting 2010 and up to 15,000 tpd by 2021 and makes the assumption in a manner to minimize the amount of export to out-of-County disposal facilities and maximize the potentially available alternative technology capacity.

In-County Class III landfill expansion

The Scenario No. 8 analysis also makes the following assumptions with respect to in-County Class III landfill expansions:

- The scenario also assumes that all proposed expansions of existing in-County Class III landfills as identified in Chapter 7 (see **Section 7.5.2 and Table 7-3)** will be successfully permitted and developed to their full capacity, as proposed.

Daily Export Need

The daily export need is listed in the 24th column of **Table 4-18 and summarized in Table 4-19.** Based on the export need analysis, the actual daily export rate for 2006 and 2007 were 5,713 tpd and 5,715 tpd, respectively. There is a daily export need in 2008 (5,390 tpd) and 2009 (5,227 tpd). However, except for the period 2014 (8,348 tpd) to 2016 (4,082 tpd), there is a negative "(-)"daily export need from the year 2010 (-1,325 tpd) to end of the planning period in 2021 (-2,813 tpd).

Solid Waste Export Capacity (Available Out-of-County Disposal Capacity)

Scenario No. 8 analysis makes the following assumptions with respect to solid waste exports:

- Currently Available Out-of-County Disposal Capacity

  The currently available out-of-County disposal capacity (i.e., export capacity) is assumed to include (1) the amount of Los Angeles County solid waste currently exported to the existing out-of-County Class III landfills; (2) the expiration of the export agreements to Orange County landfills (Olinda Alpha Sanitary landfill in 2013 and 2015, and both Frank R. Bowerman Sanitary landfill and Prima Deshecha Canada Sanitary Landfills in 2015) subject to any future export agreements by

Orange County; and (3) the additional 8,000 tpd in export via the CSD's waste-by-rail system to Mesquite Regional Landfill by 2014.

- Future Available Out-of-County Disposal Capacity

The future available out-of-County disposal capacity (i.e., export capacity) is also assumed to increase through (a) additional 4,000 tpd from CSD's waste-by-truck to Mesquite Regional Landfill by 2010, and (b) assuming development of proposed expansions of existing out-of-County Class III landfills and/or transformation facilities will become operational during the 15-year planning period.

Based on the available export capacity analysis (see **Alternative D in Table 4-22**) the currently available solid waste export capacity is approximately 5,713 tpd (six days per week) in 2006 and 5,715 tpd in 2007, and remains at that level until 2010. The export capacity increases to 9,715 tpd in 2010 due to the additional 4,000 tpd from waste-by-truck to Mesquite Regional Landfill, and remains at same level until 2013. Despite the expiration of the export agreement with Orange County landfills, the available export capacity increases to 16,873 tpd in 2014 due to the additional 8,000 tpd in export via the CSD's waste-by-rail system to Mesquite Regional Landfill. In 2016, the export capacity drops to 15,206 tpd and remains at that level through the end of the planning period (2021).

Remaining Daily Disposal Capacity Need (Shortfall)

The remaining daily disposal capacity need (shortfall) is listed in the last column of **Table 4-18.** Based on the analysis, there was no remaining daily disposal capacity need (shortfall) in 2006 and 2007. However, an excess in remaining daily disposal capacity will be experienced from 2008 (325 tpd) to the end of the planning period in 2021 (18,019 tpd) with a maximum excess capacity of 18,179 tpd in 2020.

Therefore, additional disposal capacity (either in-County or out-of-County) would not be required in order to adequately provide for the solid waste disposal needs of the 88 cities and the County unincorporated areas during the 15-year planning period.

4.10.9~~7~~ Impact of Closure of Puente Hills Landfill's Green Waste Alternative Daily Cover Program on the Disposal Capacity Need Analysis

Upon closure of Puente Hills Landfill (PHL) in 2013, the green waste which is diverted (e.g., 284,800 tons in 2006) under the PHL's Alternative and Intermediate Daily Cover (ADC) Program may have to re-enter into the waste stream and count as disposal tonnage, unless an alternative diversion program is developed to handle the green waste. Consequently,

the in-County disposal need and remaining daily disposal capacity need (shortfall) may increase by a proportional amount.

Based on the historical data of green waste intake at Puente Hills Landfill for ADC and other beneficial use since 1990, the current intake of 331,300 tons per year in 2006 is projected to increase to 391,312 tons per year by 2021.

Similarly, a comparison of the projected remaining daily disposal capacity need (shortfall) in the worst case scenario of 44,326 tpd or 13.8 million tons per year by 2021, establishes that in the worst case, the closure of Puente Hills Landfill ADC program will increase the disposal shortfall in Los Angeles County by average of three percent.

Therefore, the impact of termination of Puente Hills Landfill ADC program ~~to~~on the overall in-County remaining daily disposal capacity need (shortfall) ~~is relatively minimal and/or~~ would not have a significant impact on the County's disposal strategy. As such, no Disposal Capacity Need Analysis Scenario is devoted in this Chapter ~~for~~to this impact.

However, the impact to the diversion rate of the jurisdictions that send green-waste to Puente Hills Landfill for ADC credit will be significant, since it could be the difference between meeting or failing to meet the 50 percent diversion mandate of AB 939. As a result, affected jurisdictions would have to devise alternative means of recycling the green waste, such as by supporting the development and use of conversion and other alternative technology facilities within the region.

4.11 SUMMARY

The preceding section analyzed the County's disposal need under ~~six~~eight scenarios. This Section summarizes the analysis and its findings:

The description of the variables in each scenario is summarized in **Table 4-10**. The Class III Landfill Disposal Need under each scenario is summarized in **Table 4-21**. The export need under each scenario is summarized in **Table 4-19~~7~~** and Figure **4-2**. The remaining daily disposal capacity need (shortfall) under each scenario is summarized in **Table 4-20~~18~~** and **Figure 4-3**.

In all the scenarios, solid waste exports are considered part of the out-of-County disposal regardless of whether the export occurred during a period of adequate or inadequate in-County disposal capacity ~~(see Table 4-10)~~. As a result, (1) "export need" represents the estimated amount of solid waste that could not be managed at in-County Class III landfills, transformation facilities, and alternative technology facilities due to lack of in-County Class disposal capacity (see **Table 4-19~~7~~ and Figure 4-2**), (2) "available export capacity" represents the anticipated amount of out-of-County Class III landfill disposal capacity

available for Los Angeles County waste exports, and (3) the remaining daily disposal capacity need (shortfall) represents the amount of solid waste that cannot be managed both in-County and out-of-County. (~~S~~see **Table 4-20~~18~~,** and **Figures 4-3~~2~~**).

This remaining daily disposal capacity need (shortfall) would have to be managed by a combination of various means such as increasing use of out-of-County disposal capacity, increasing the diversion rate, using alternative(e.g., conversion) technology facilities, etc., to meet the Siting Element requirement of providing 15-years of adequate disposal capacity.

Furthermore, the Class III landfill disposal capacity need described in the various scenarios (**Tables 4-11 to 4-18~~6~~**) excludes the current and projected future exports under the status quo. Therefore, unlike the disposal capacity need analysis in the 1997 CSE, the daily disposal capacity export need in these scenarios represent the total amount of solid waste that needs to be exported out of the County, and the remaining daily disposal capacity need (shortfall) represents the amount that still needs to be disposed even after taking into account the currently available out-of-County disposal export capacity.

Under all the Scenarios, there is an export need in 2006 and throughout majority of the planning period with a spike in the export need in 2014 reflecting the closure of Puente Hills Landfill. Since there was adequate out-of-County Class III landfill existing for the current export need, there ~~is~~ was no remaining daily disposal capacity need (shortfall) in 2006 and 2007. However, there was a remaining daily disposal capacity need (shortfall) in Scenarios 1 through 4 for the remainder of the planning period. There is a diminishing amount of ~~the~~ export need and remaining daily disposal capacity need (shortfall) from Scenarios 1 (Worst Case ~~Scenario~~) to 8~~6~~ (~~Best~~Optimistic Case Scenario – Optimistic Alternative Technology Capacity ~~Scenario~~) as other waste management alternatives are progressively incorporated into the analysis. There is also an excess in remaining daily disposal capacity for the planning period for Scenarios 5 to 8~~6~~ .

Under Scenarios Nos. 1, 2, 3, and 4, the solid waste disposal capacity needs of all 88 cities and the County unincorporated ~~County~~ areas could not be met in-County (or out-of-County) during the 15-year planning period (see **Table 4-19~~7~~ and 4-20~~18~~**).

~~However,~~ A realistic but gradual increase in the Countywide diversion rate to 60 percent (Scenario No. 3) and the realistic development of conversion technology facilities within the County (Scenario No. 4~~3~~), ~~and a gradual increase in the Countywide diversion rate to 60 percent (Scenario No. 4,) would assist the County's ability to meet its disposal needs.. Since, when taken together, these measures~~ would substantially reduce the amount of waste exported to out-of-County landfills but would not be enough to address the disposal capacity needs during the 15-year planning period. ~~a level that can more likely be accommodated by out-of-County landfills~~.

~~Furthermore~~However, Scenario Nos. 5~~, and~~ 6, 7 and 8 demonstrates that the County would be able to meet its disposal needs through the 15-year planning period by successfully permitting and developing all proposed in-County landfill expansions, and utilizing up to 15,206 tpd out-of-County disposal capacity by 2021 in addition to an optimistic increase in diversion rate up to ~~60~~75 percent by 2020~~1~~, and an optimistic utilization of up to 15~~0~~,000 tpd of alternative technology capacity.

Out-of-County landfills (see **Chapter 9,** ~~Tables 4-20,~~ **Tables 9-1 and 9-2**) have been identified which could provide the capacity needed to meet these needs. However, it remains uncertain whether such capacity will be fully accessible to waste originating in Los Angeles County (see **Chapter 9, Table 9-5 and 9-6**). Moreover, adequate transportation infrastructure (e.g., a waste-by-rail system capable of handling up to 8,000 tpd or more) must be developed in order to access the capacity. Also, these out-of-County landfills may receive waste from other cities and counties, with whom Los Angeles County jurisdictions would be competing for their capacity.

~~However, a~~As indicated in **Fact Sheet 9-1**, **Fact Sheet 9-2**, and **Table ~~4-20 and~~ 9-3**, the County Sanitation Districts of Los Angeles County (CSD) completed acquisition of the Mesquite Regional Landfill in Imperial County. The Mesquite Regional Landfill has a permitted daily capacity of 20,000 tpd (out of which 19,000 tons could be received from out-of-County sources such as Los Angeles County) and with an expected 100-year lifespan. The CSD has also entered into a purchase agreement for the site of Eagle Mountain Landfill in Riverside County. However, Eagle Mountain Landfill (also with a permitted daily capacity of 20,000 tpd) remains in litigation and its future is uncertain. In addition, CSD is in the process of planning, designing and developing a Waste-by-Rail (WBR) system that could transport up to 8,000 tpd to Mesquite Regional Landfill. Additionally, CSD is also negotiating export of about 4,000 tpd of Los Angeles County solid waste by truck to Mesquite Regional Landfill for disposal.

Projecting future shortfalls or excess disposal capacity is an estimate at best. It is a very difficult undertaking due to various factors; for example, the dynamic nature of the solid waste management system in the County which is heavily impacted by the decisions of 89 jurisdictions and their waste management service providers, and other factors such as changes in regulatory requirements, disposal rates, fuel costs, and traffic congestion. Therefore, development of any type of solid waste management facility (e.g., a transfer/processing facility, composting facility, conversion technology facilities, etc.) continue to become more difficult and siting a disposal facility much more complex and costly. As a result, lack of realistic and proper solid waste management planning in the County could have serious health and safety, economic, and environmental consequences.

The disposal capacity need analysis (See Section 4.9), demonstrates the need and importance of pursuing a multi-faceted approach that incorporates:

- Continued reliance on in-County disposal.
- Continued utilization of currently available out-of-County disposal facilities capacity.
- Continued enhancement of jurisdictions' diversion efforts (gradually increasing Countywide diversion rate from ~~5~~60 to 75~~60~~ percent).

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- Aggressively pursuing development and use of conversion and other alternative technologies.
- Successful permitting and development of expansion of existing in-County Class III landfills
- Use and development of out-of-County Class III landfills located in California (or equivalent Subtitle D landfills located outside California).
- Aggressively pursuing development of the in-County infrastructure (e.g., transfer stations/material recovery facilities, rail-access inter-modal facilities, etc.) necessary to access out-of-County landfill capacity.

4.12 CONCLUSIONS

The preceding discussions have demonstrated that the combination of an increase~~d~~ in diversion rate, development of alternative technologies, potential expansion of existing in-County Class III landfills, 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 Los Angeles County for the 15-year planning period (2006-2021).

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 facilities identified may encounter strong opposition during the permitting process, and that not all of the facilities may be approved. And that 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:

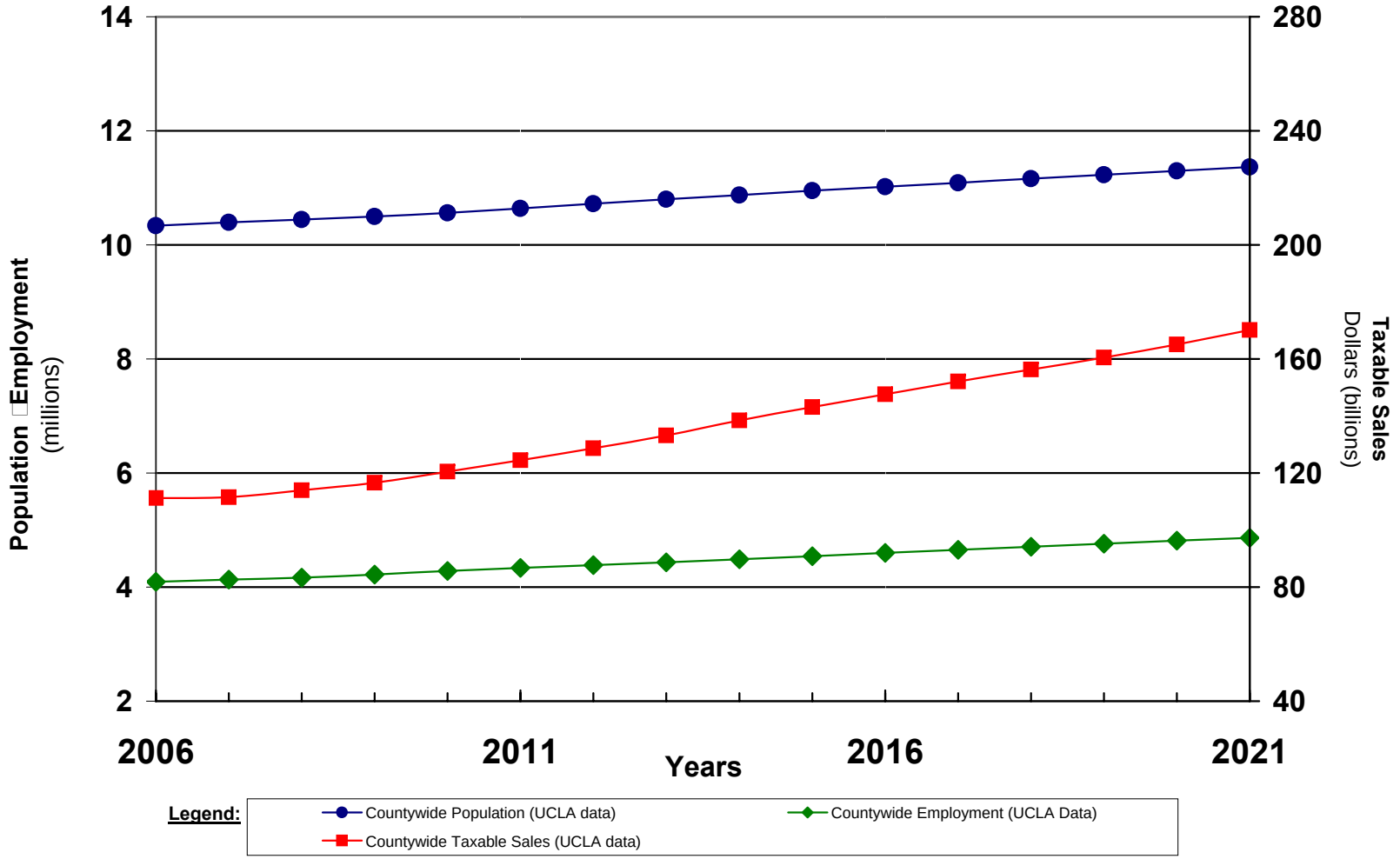
- The planning process must incorporate adequate reserve daily capacity to handle unanticipated disposal needs as well as daily and seasonal variations in waste quantities.

- 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, 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 MRF/TS, intermodal facilities, waste-by-rail system, and other transportation modes.

- The anticipated disposal needs of Los Angeles County cannot be met by pursuing a single alternative (i.e., landfill expansions, transformation technologies, out-of-County disposal, etc.). Jurisdictions in Los Angeles must work on all fronts simultaneously in order to avert the remaining daily disposal capacity need (shortfall) in the short, medium and long term. As a part of this effort, economic incentives must be formulated to promote development of conversion technology and other viable alternatives to landfill technology.

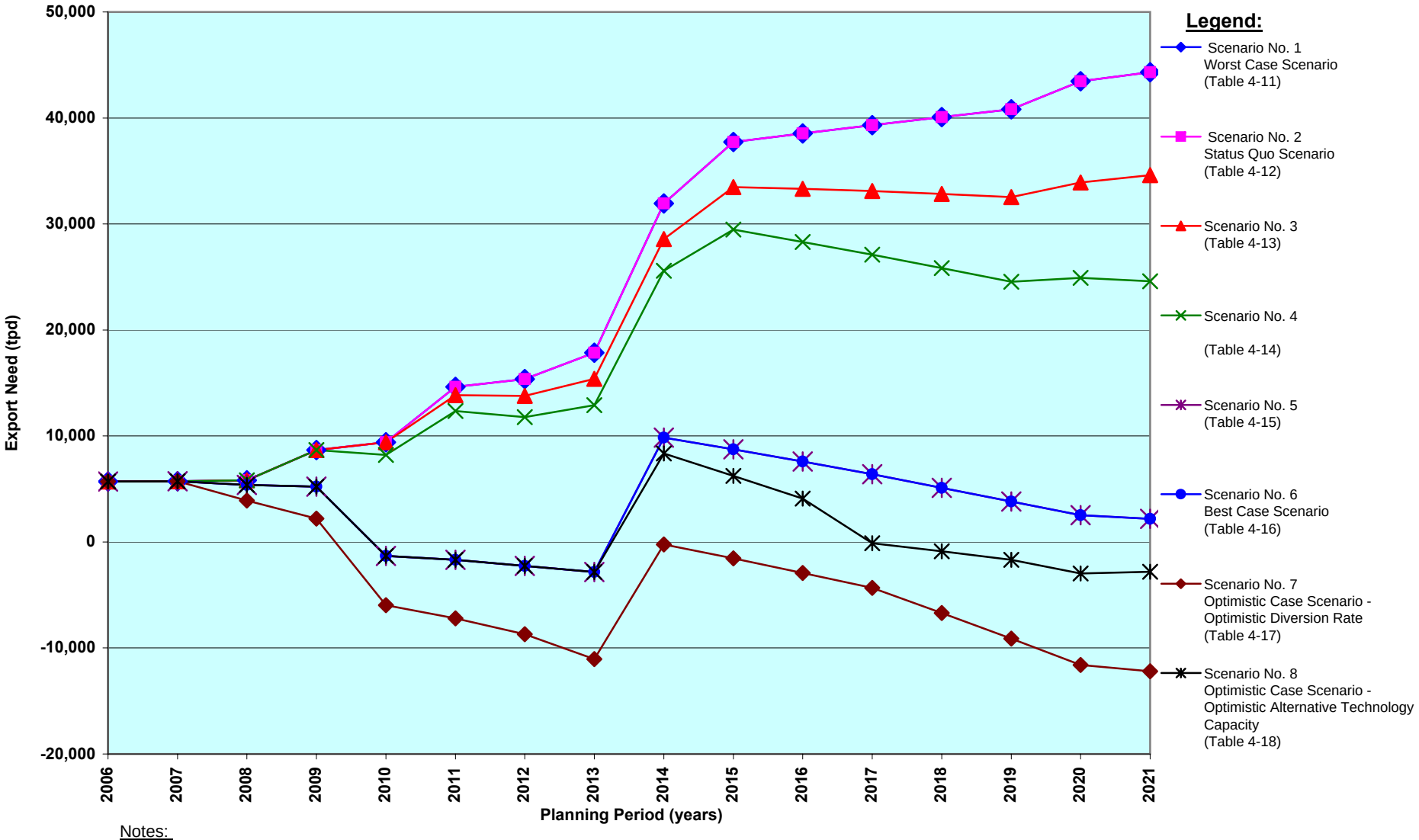
- Since it takes up to ~~10~~15 years or more to fully permit expanded solid waste management facility capacity, the planning process must begin now in order to ensure the uninterrupted availability of solid waste disposal services, at reasonable cost, to serve the disposal need of all residents and businesses in Los Angeles County.

Figure 4-1
Graph of Population, Employment, and Taxable Sales
in Los Angeles County



Notes:
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 June 2007.
2. See Table 4-6 for projection data.

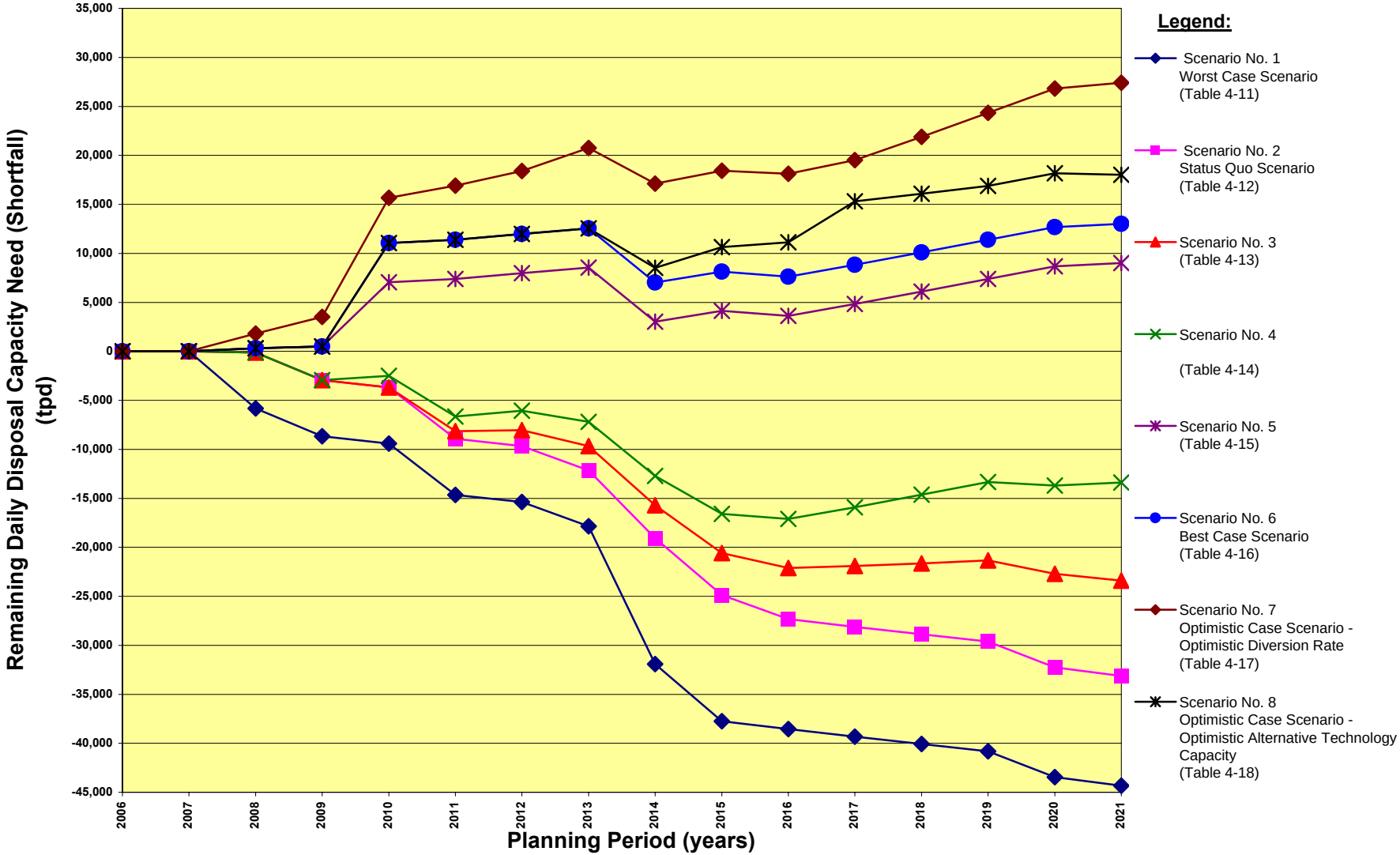
Figure 4-2
Los Angeles County Solid Waste Disposal Export Need
for each Disposal Capacity Need Analysis Scenario



Notes:

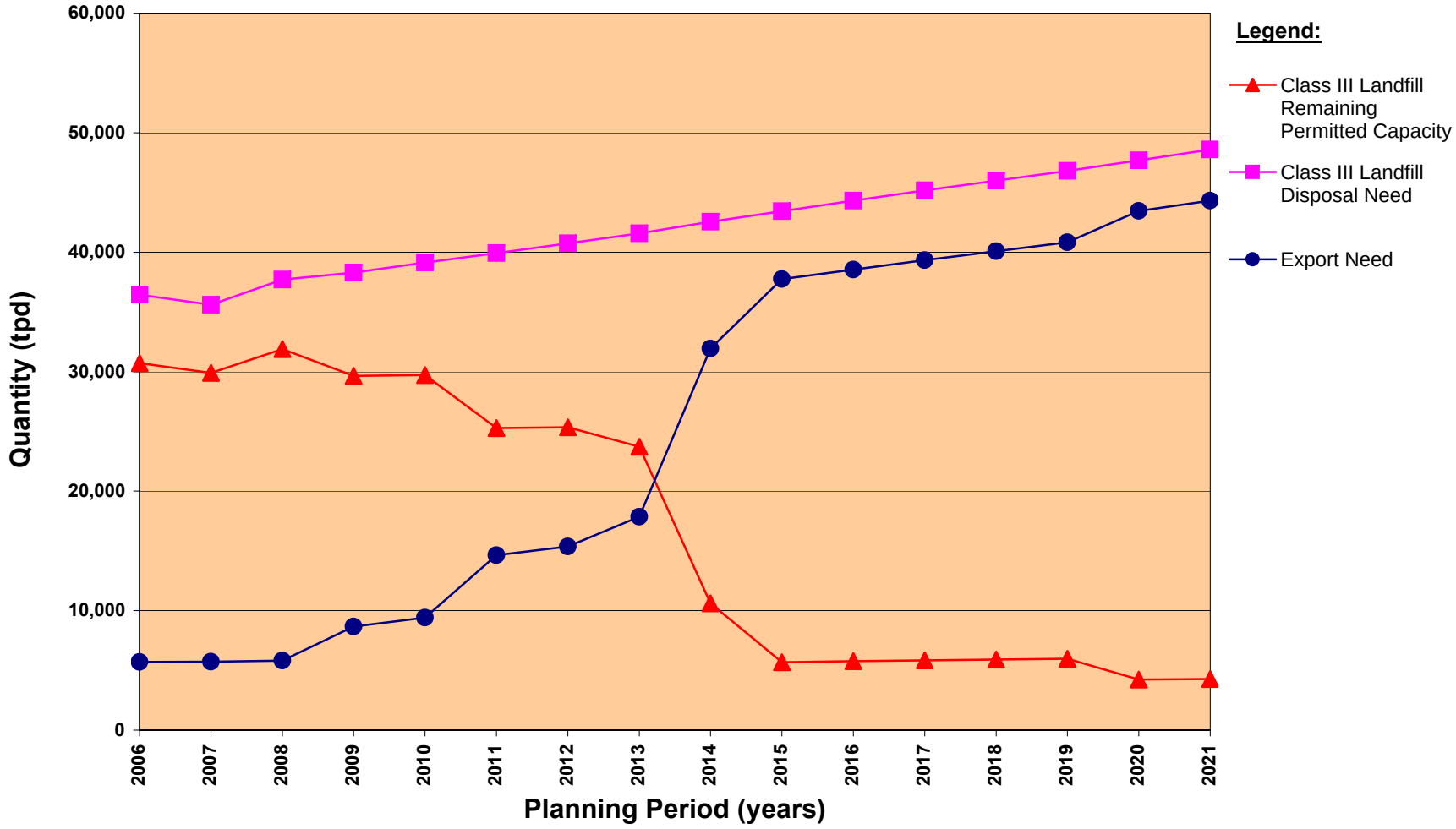
1. An export need is shown as negative "(-)" values; while excess in export need is shown as positive "(+)" values.
2. The export need in Scenario No. 1 is the same as in Scenario No. 2; and the export need in Scenario No. 5 is almost identical to Scenario No. 6.
3. "Tpd" means tons per day.

Figure 4-3
Los Angeles County Remaining Solid Waste Daily Disposal Capacity Need (Shortfall)
for each Disposal Capacity Need Analysis Scenario



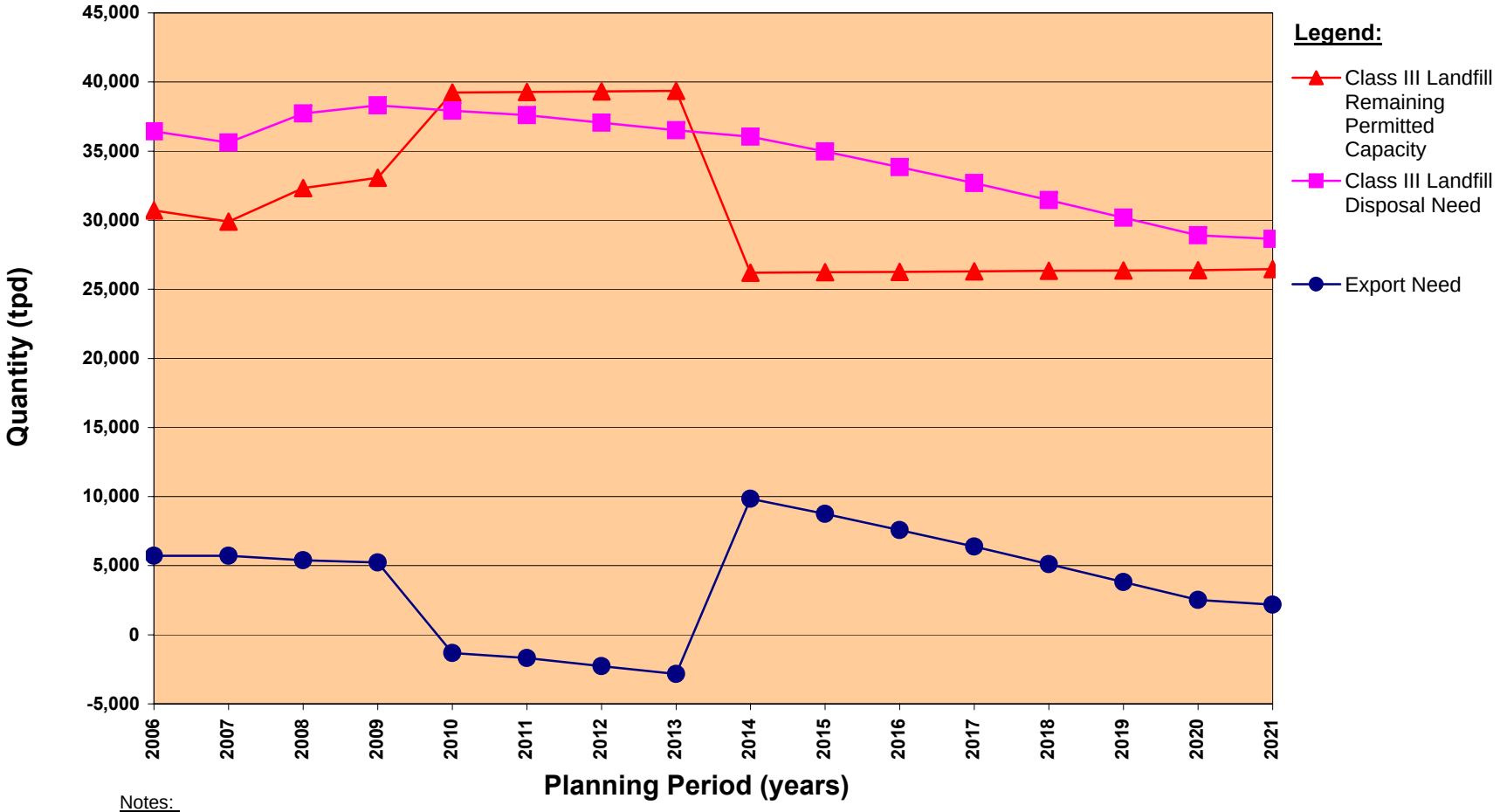
Notes:
1. Disposal Capacity Need (Shortfall) is shown as negative "(-)" values; while excess in disposal capacity is shown as positive "(+)" values.
2. "Tpd" means tons per day.

Figure 4-4
Los Angeles County Class III Landfill Disposal Need,
Class III Landfill Remaining Permitted Disposal Capacity, and Export Need
for the Disposal Capacity Need Analysis
Scenario No. 1 (Worst Case Scenario)



Notes:
1. The Disposal Capacity Need Analysis Worst-Case Scenario assumes utilization of only the existing in-County Class III landfills and transformation facilities during the planning period.
2. "Tpd" means tons per day.

Figure 4-5
Los Angeles County Class III Landfill Disposal Need,
Class III Landfill Remaining Permitted Disposal Capacity, and Export Need
for the Disposal Capacity Need Analysis
Scenario No. 6 (Best Case Scenario)



Notes:

1. The Disposal Capacity Need Analysis Scenario No. 6 (Best Case Scenario) assumes (a) utilization of existing in-County Class III landfills and transformation facilities, (b) utilization of currently available out-of-County disposal capacity, (c) realistic increase in diversion rate (up to 60 percent by 2020), (d) realistic development of alternative technology facility capacity (from 1,200 tpd by 2010 and up to 10,000 tpd by 2021), (e) development of all proposed in-County Class III landfill expansions, and (f) utilization of future available out-of-County disposal facility capacity, during the planning period. This assumes a full implementation of the alternative technology facilities goal and objectives proposed for both the City and County of Los Angeles.
2. "Tpd" means tons per day.

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 No.	Days in Operation (per week)	Jan. 1991 SWFP Daily Capacity	CUP LUP 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 permitted capacity (effective Jan. 1, 1990)	
			Tons	Tons	Tons	Tons (Millions)	Tons (Millions)	Cubic Yards (d) (Millions)	Tons (Millions)	Cubic Yards (d) (Millions)
Antelope Valley	19-AA-0009	7	350	-	400	0.125	0.925	2.6	1.050	3.0
Azusa Land Reclamation	19-AA-0013	6	6,500	6,500	2,756	0.86	0	0	0.86	1.23
BKK	19-AF-0001	6	12,000**(a)**	-	9,744	3.04	15.96	23.8	19.00	28.3
Bradley West	19-AR-0008	6	7,000	9,500	1,923	0.6	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	22.0	11.30	22.1
Calabasas	19-AA-0056	6	3,500	-	2,724	0.85	15.155	21.6	16.005	22.8
Chiquita Canyon	19-AA-0052	7	5,000	-	1,763	0.55	1.78	2.2	2.33	2.9
Lancaster	19-AA-0050	6	450	-	295	0.092	0.15	0.5	0.24	0.8
Lopez Canyon	19-AA-0820	5	4,100**(b)**	4,000	3,109	0.97	4.2	7.0	5.2	8.6
Pebbly Beach	19-AA-0061	6	30	-	10	0.003	0.097	0.16	0.100	0.16
Pitchess Honor Rancho	19-AA-0057	5	23	-	17	0.0054	2.24	3.73	2 .25	3.74
Puente Hills	19-AA-0053	6	12,000	13,200	11,859	3.7	7.5	10.7	11.2	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	14.00	20
Spadra	19-AA-0015	6	3,000	-	2,724	0.85	6.95	9.93	7.80	11.14
Sunshine Canyon	19-AR-0002	6	7,000	6,000	3,141	0.98	0.4	1.64	1.4	5.66
Two Harbors	19-AA-0062	5	3.5	-	3.5	0.000088	0.0073	0.0104	0.0074	0.0105
Whittier (Savage Canyon)	19-AH-0001	6	350	-	353	0.11	6.39	10.6	6.50	10.8
TOTAL			**63,950(c)**		**43,245**	**13.49**	**98.65**	**156.08**	**112.15**	**177.42**

Footnotes:
(a) Daily capacity established in June 1990; Notice and Order as amended by the City of West Covina's Local Enforcement Agency.
(b) Daily capacity established by Report of Disposal Site Information and Courts.
(c) Average daily tonnage, Monday through Friday.
(d) Based on in-place solid waste density provided by landfill operators.

Notes:
1. 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, Los Angeles County Countywide Siting Element).2. "SWFP" means Solid Waste Facility Permit. SWFP No. is same as the Solid Waste Information System (SWIS) Number.
3. "CUP" means Conditional Use Permit.
4. "LUP" means Land Use Permit.

Source: Los Angeles County Department of Public Works.

TABLE 4-2 ~~(PAGE 1 OF 2)~~

SUMMARY OF YEARLY SOLID WASTE DISPOSAL QUANTITIES[1] (in TONS) FOR LOS ANGELES COUNTY FROM 1990 TO ~~1995~~2006 ~~IN TONS~~

Year~~ly~~	In-County Disposal at Class III Landfills	In-County Disposal at Transformation Facilities	Exports	Imports	~~In-County Unclassified Landfill~~ Disposal at in-County Permitted Inert Waste Landfills	Total Disposal at Class III Landfills and Transformation Facilities, Including Exports and Excluding Imports	Total Disposal at Class III Landfills and Transformation Facilities, Including Exports and Excluding Imports	Total Disposal at Class III Landfills, Transformation Facilities, and ~~Unclassified landfill~~ 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	TBD[4]	801,308	1,100,405	[11,854,479]	[12,655,787]	[13,756,192]
1997	10,389,210	439,673	TBD	374,318	869,542	[10,828,883]	[11,203,201]	[12,072,743]
1998	11,212,563	427,725	TBD	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
2001	9,825,357	547,466	1,095,711	182,832	1,296,425	11,468,534	11,285,702	12,582,127
2002	8,973,755	539,542	2,009,845	158,496	1,045,960	11,523,142	11,364,646	12,410,606
2003	9,152,334	539,188	2,207,873	153,504	919,600	11,899,395	11,745,891	12,665,491
2004	9,110,298	548,249	2,308,181	156,000	1,247,500	11,966,728	11,810,728	13,058,228
2005	9,574,072	535,225	2,177,097	235,872	85,678	12,286,394	12,050,522	12,136,200
2006	9,583,227	537,733	1,782,609	266,448	101,748	11,903,569	11,637,121	11,738,869

Notes/Assumptions:

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. 1996-2005 does not include waste imported from jurisdictions outside the County.

Column B: Total disposal at transformation facilities in Los Angeles County. Data for the period 1990-1995 includes waste imported from jurisdictions outside the County. Data for the period 1996-2005 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 Los Angeles County to disposal facilities located outside the County. Data for the period 1996-1998 is yet to be determined and will be updated when data becomes available.

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

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

Column F: Includes disposal by jurisdictions in Los Angeles 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: ~~F~~ Includes disposal by jurisdictions in Los Angeles County at Class III landfills, ~~T~~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 1999-2005 does not include waste imported from jurisdictions outside theCounty.

Column H: ~~G~~ Includes disposal at Class III landfills, transformation facilities, permitted ~~I~~inert waste ~~Unclassified~~ landfills, and the waste exported for disposal at landfills outside Los Angeles 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. Data for the period 1999-2005 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.

[1] See Chapter 4, ~~Section Subs~~Sections ~~4.3.2 and 4.3.3~~ 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~~ not available
[3] Excludes debris generated as a result of Northridge Earthquake.
[4] "TBD" means to be determined.

Source: Los Angeles County Department of Public Works

TABLE 4-23 (PAGE 2 OF 2)

SUMMARY OF YEARLY SOLID WASTE DISPOSAL QUANTITIES[1] (in CUBIC YARDS) FOR LOS ANGELES COUNTY

FROM 1990 TO 19952006 IN TONS

Yearly	In-County Disposal at Class III Landfills	In-County Disposal at Transformation Facilities	Exports	Imports	In-County Unclassified Landfill 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 Unclassified landfill Permitted 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	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]	13,562,000 [22,603,333]
1992	19,870,000	871,667	36,667	N/A	1,445,000	20,778,333	[20,778,333]	13,334,000 [22,223,333]
1993	18,833,333	863,333	203,333	N/A	1,231,667	19,900,000	[19,900,000]	12,679,000 [21,131,667]
1994	19,316,667[3]	876,667	213,333	508,333	870,000	20,406,667	11,939,000 19,898,333	12,461,000 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	TBD[4]	1,335,513	1,834,008	[19,757,465]	[21,092,978]	[22,926,986]
1997	17,315,350	732,788	TBD	623,863	1,449,237	[18,048,138]	[18,672,001]	[20,121,238]
1998	18,687,605	712,875	TBD	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	18,573,617	18,222,617	19,905,950
2000	16,798,315	850,758	1,324,850	382,200	2,220,953	18,973,923	18,591,723	20,812,677
2001	16,375,595	912,443	1,826,185	304,720	2,160,708	19,114,223	18,809,503	20,970,212
2002	14,956,258	899,237	3,349,742	264,160	1,743,267	19,205,237	18,941,077	20,684,343
2003	15,253,890	898,647	3,679,788	255,840	1,532,667	19,832,325	19,576,485	21,109,152
2004	15,183,830	913,748	3,846,968	260,000	2,079,167	19,944,547	19,684,547	21,763,713
2005	15,956,787	892,042	3,628,495	393,120	142,797	20,477,323	20,084,203	20,227,000
2006	15,972,045	896,222	2,971,015	444,080	169,580	19,839,282	19,395,202	19,564,782

Notes/Assumptions:

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. 1996-2005 does not include waste imported from jurisdictions outside the County.

Column B: Total disposal at transformation facilities in Los Angeles County. Data for the period 1990-1995 includes waste imported from jurisdictions outside the County Data for the period 1996-2005 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 Los Angeles County to disposal facilities located outside the County. Data for the period 1996-1998 is yet to be determined and will be updated when data becomes available.

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

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

Column F: Includes disposal by jurisdictions in Los Angeles 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: F Includes disposal by jurisdictions in Los Angeles County at Class III landfills, Ttransformation 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 1999-2005 does not include waste imported from jurisdictions outside the County.

Column H: G Includes disposal at Class III landfills, transformation facilities, permitted iinert waste Unclassified landfills, and the waste exported for disposal at landfills outside Los Angeles 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. Data for the period 1999-2005 also 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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[1] See Chapter 4, Section Subsections 4.3.2 and 4.3.3 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 Not available

[3] Excludes debris generated as a result of Northridge Earthquake.

[4] "TBD" means to be determined.

Source: Los Angeles County Department of Public Works

TABLE 4-4
DISPOSAL CAPACITY OF INERT WASTE LANDFILLS LOCATED IN LOS ANGELES COUNTY
(As of December 31, 2006)

No.	Facility	Location (City)	SWFP No.	Type of Solid Waste Facility Permit	Type of Operation	Operation days/week	SWFP Maximum Daily Capacity	LUP/CUP Maximum Daily Capacity	2006 Average Daily Disposal Rate 6 days/week (See Note 1)	Amount Disposed in 2006 (See Note 2)	Amount Disposed in 2007 (See Note 2)	Estimated Remaining Permitted Capacity (as of January 1, 2006) (See Note 3)	
							Tons per day	Tons per day	Tons per day	Tons (millions)	Tons (millions)	Tons (millions)	Tons (millions)
PERMITTED INERT WASTE LANDFILLS													
1	**Azusa Land Reclamation**	Asuza	19-AA-0013	Full	CDI Waste Disposal Facility	6	6,500	TBD	538	0.17	0.12	36.54	44.56
2	**Peck Road Gravel Pit**	Monrovia	19-AA-0838	Full	CDI Waste Disposal Facility	6	1,210	TBD	2	0.00	0.00	9.79	6.53
	Subtotal						**7,710**	**---**	**540**	**0.17**	**0.12**	**46.33**	**51.09**
INERT DEBRIS ENGINEERED FILL OPERATION													
3	**Chandler's Palos Verdes Sand & Gravel**	Rolling Hills Estates	19-AA-0004	EAN	IDEFO	6	75	TBD	0	0.12	0.02	N/A	N/A
4	**Hanson Aggregates (Livingston-Graham)**	Irwindale	19-AA-0044	EAN	IDEFO	6	1,600	TBD	628	0.20	0.12	N/A	N/A
5	**Lower Azusa Reclamation Project**	Arcadia	19-AA-0868	EAN	IDEFO	6	6,000	TBD	2062	0.64	0.53	N/A	N/A
6	**Montebello Land & Water Co.**	Montebello	19-AA-0019	EAN	IDEFO	6	20	TBD	0	0.00	0.00	N/A	N/A
7	**Nu-Way Arrow Reclamation**	Irwindale	19-AA-1074	EAN	IDEFO	6	7,500	TBD	3279	1.03	0.92	N/A	N/A
8	**Nu-Way Live Oak Reclamation**	Irwindale	19-AA-0849	EAN	IDEFO	6	6,000	TBD	5660	1.77	0.24	N/A	N/A
9	**Reliance Pit #2 (CalMat) Vulcan**	Irwindale	19-AA-0854	EAN	IDEFO	6	6,000	TBD	14	0.00	0.00	N/A	N/A
10	**Sun Valley (CalMat/Vulcan)**	Los Angeles	19-AR-1160	EAN	IDEFO	6	1,823	TBD	1298	0.40	0.57	N/A	N/A
11	**Strathern Landfill**	Sun Valley	19-AR-1016	EAN	IDEFO	6	2,700	TBD	1,243	0.39	0.35	N/A	N/A
	Subtotal						**31,718**	**---**	**14,184**	**4.56**	**2.74**	**N/A**	**N/A**
INERT WASTE LANDFILL WITH PENDING CLASSIFICATION													
12	**Atkinson Brick Company**	Los Angeles	N/A	None	N/A	6	-	TBD	87	0.03	0.10	N/A	N/A
	Subtotal						**-**	**---**	**87**	**0.03**	**0.10**	N/A	N/A
	GRAND TOTAL						**39,428**	**---**	**14,811**	**4.76**	**2.97**	**N/A**	**N/A**

Notes:

1. Disposal quantities for 2006 are based on actual tonnages reported by owners/operators for inert waste generated within Los Angeles County and imported from outside Los Angeles County. Information is also based on the Solid Waste Management Fee invoices, the State Disposal Reporting System, and/or the annual tonnage reports to the LEA.
2. Conversion factors are based on the in-place solid waste density provided by landfill operators, otherwise, 3,000 pound per cubic yard is used.
3. Estimated Remaining Permitted Capacity is based on landfill owner/operators responses to a written survey conducted by Los Angeles County Department of Public Works in August 2006, as well as a review of site specific permit criteria established by local land use agencies (e.g., the LEAs, CRWQCBs, and the SCAQMD).
4. Amount disposed in 2007 is shown for information only.
5. "N/A" means data is not available.
6. "TBD" means data is to be determined.
7. Totals do not include data indicated as "N/A" or "TBD".
8. "EAN" means Enforcement Agency Notification.
9. "IDEFO" means Inert Debris Engineered Fill Operations.
10. "None" means currently active but unpermitted/exempt inert waste landfill.
11. "SWFP" means Solid Waste Facility Permit.

Source : Los Angeles County Department of Public Works, SWIMS (May 2008), and 2006 Annual Report on the Los Angeles County Countywide Siting Element, June 2008

TABLE 4-5

SOLID WASTE GENERATION BY LOS ANGELES COUNTY JURISDICTIONS IN 2006

BASED ON CLASS III LANDFILLS AND TRANSFORMATION FACILITIES DISPOSAL QUANTITIES

(Excluding Inert Waste Landfills)

	A	B	C	D	E	F
	In-County Disposal					
Year	**Class III Landfills**	**Transformation Facilities**	**Out-of-County Disposal (Exports)**	**Total Disposal A+B+C**	**State Mandated Diversion Rate**	**Calculated Solid Waste Generation for 2006**
	(Tons)	(Tons)	(Tons)	(Tons)	(Percent)	(Tons)
2006	9,583,227	537,733	1,782,609	11,903,569	50	23,807,137

* Excludes disposal at inert waste landfills.

Notes:

Column A : Total disposal at Class III landfills located in Los Angeles County. Does not include waste imported from jurisdictions outside Los Angeles County.

Column B : Total disposal at transformation facilities in Los Angeles County. Does not include waste imported from jurisdictions outside Los Angeles County.

Column C : Waste exported by jurisdictions in Los Angeles County to disposal facilities (Class III landfills only) located outside Los Angeles County.

Column D : Columns A + B + C

Column E : State mandated diversion rate of 50 percent was achieved in the year 2006.

Column F : Solid waste generation in 2006 is derived from the actual disposal amount of 11,903,569 tons and assumptions of a 50 percent diversion rate. The 2006 generation rate is used as the base, data year to project the County's Class III landfill and transformation disposal needs through the year 2021. Disposal at inert waste landfills is excluded from these calculations.

Source : Los Angeles County Department of Public Works, SWIMS (May 2008), and 2006 Annual Report on the Los Angeles County Countywide Siting Element, June 2008

Table 4-6

LOS ANGELES COUNTY SOLID WASTE GENERATION PROJECTIONS FOR THE PLANNING PERIOD (2006-2021)

YEAR	POPULATION	EMPLOYMENT	TAXABLE SALES	B-Y RWG	B-Y NWG	RAF	NAF	TOTAL GENERATION (TONS)	DAILY WASTE GENERATION RATE (TPD[1])
2006	10,338,000	4,092,600	$111,200,000,000	9,998,998	13,808,139			23,807,137	76,305
2007	10,395,000	4,132,900	$111,500,000,000	9,998,998	13,808,139	1.00589304	1.006272441	23,952,672	76,771
2008	10,444,000	4,166,400	$114,000,000,000	9,998,998	13,808,139	1.015929818	1.021606201	24,264,761	77,772
2009	10,498,000	4,219,000	$116,600,000,000	9,998,998	13,808,139	1.027599981	1.039723082	24,631,611	78,947
2010	10,563,000	4,283,900	$120,500,000,000	9,998,998	13,808,139	1.043476181	1.065187998	25,141,980	80,583
2011	10,640,000	4,338,700	$124,500,000,000	9,998,998	13,808,139	1.059540617	1.08986862	25,643,402	82,190
2012	10,722,000	4,385,200	$128,700,000,000	9,998,998	13,808,139	1.075789506	1.114434497	26,145,084	83,798
2013	10,800,000	4,434,400	$133,200,000,000	9,998,998	13,808,139	1.092684327	1.140679159	26,676,405	85,501
2014	10,875,000	4,487,500	$138,400,000,000	9,998,998	13,808,139	1.111246028	1.170547772	27,274,433	87,418
2015	10,949,000	4,541,900	$143,100,000,000	9,998,998	13,808,139	1.128714674	1.198327008	27,832,682	89,207
2016	11,020,000	4,598,100	$147,600,000,000	9,998,998	13,808,139	1.145698539	1.225426872	28,376,702	90,951
2017	11,090,000	4,653,300	$152,100,000,000	9,998,998	13,808,139	1.162572953	1.252404564	28,917,941	92,686
2018	11,160,000	4,706,000	$156,300,000,000	9,998,998	13,808,139	1.178620192	1.277727906	29,428,066	94,321
2019	11,229,000	4,759,200	$160,500,000,000	9,998,998	13,808,139	1.194649608	1.303112333	29,938,855	95,958
2020	11,296,000	4,813,500	$165,100,000,000	9,998,998	13,808,139	1.211548769	1.330429711	30,485,032	97,708
2021	11,364,000	4,863,500	$170,100,000,000	9,998,998	13,808,139	1.229132907	1.359020312	31,055,639	99,537

Notes:

Population: Countywide Population Projection (UCLA, Long Term Forecast for Los Angeles County, June 2007)
Employment: Countywide Employment Projection (UCLA, Long Term Forecast for Los Angeles County, June 2007)
Employment data from UCLA only accounts for non-farm employment.
Taxable Sales: Countywide Taxable Sales (Source of information is UCLA, Long Term Forcast of Los Angeles County, June 2007).
Taxable Sales data from UCLA considers the real dollar value.
B-Y RWG = Base Year Residential Waste Generation. Calculation based on 1990 Residential Waste Generation factor (42 percent of total waste generation).
B-Y NWG = Base Year Non-Residential Waste Generation. Calcuation based on 1990 Non-residential Waste Generation factor (58 percent of total 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

The Adjustment Methodology Formula as adopted by the CIWMB is expressed as follows:
Estimated Solid Waste Generation for the Reporting Year □ [(B-Y RWG) (RAF)] □ [(B-Y NWG)(NAF)]

PR= Population in the Reporting Yeai
PB= Population in the Base Year
ER= Employment in the Reporting Year
EB= Employment in the Base Year
CR= Consumer Price Sales 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

Footnotes:

[1]"TPD" means tons per day (6-day per week average)

Source : Los Angeles County Department of Public Works, SWIMS (May 2008), and 2006 Annual Report on the Los Angeles County Countywide Siting Element, June 2008

TABLE 4-7

LOS ANGELES COUNTY SOLID WASTE DISPOSAL CAPACITY REQUIREMENTS FOR THE PLANNING PERIOD (2006-2021)

(Excluding Disposal Capacity Provided By Permitted Inert Waste Landfills)

A	B	C	D	E	F	G	H	I	J
YEAR	TOTAL GENERATION (TONS)	PERCENT DIVERSION (ASSUMED)	TOTAL DIVERSION (TONS)	PROJECTED TRANSFORMATION □ CLASS III LANDFILL DISPOSAL (TONS)	AVAILABLE TRANSFORMATION CAPACITY (TONS)	CLASS III LANDFILL DISPOSAL NEED			
						ANNUAL		CUMULATIVE (YEAR'S END)	
						TONS	CUBIC YARDS	TONS	CUBIC YARDS
2006	23,807,137	50	11,903,569	11,903,569	645,600	- - -	- - -	- - -	- - -
2007	23,952,672	50	11,976,336	11,976,336	645,600	11,330,736	18,884,560	11,330,736	18,884,560
2008	24,264,761	50	12,132,380	12,132,380	645,600	11,486,780	19,144,634	22,817,516	38,029,194
2009	24,631,611	50	12,315,805	12,315,805	645,600	11,670,205	19,450,342	34,487,722	57,479,537
2010	25,141,980	50	12,570,990	12,570,990	645,600	11,925,390	19,875,650	46,413,112	77,355,187
2011	25,643,402	50	12,821,701	12,821,701	645,600	12,176,101	20,293,502	58,589,213	97,648,688
2012	26,145,084	50	13,072,542	13,072,542	645,600	12,426,942	20,711,570	71,016,155	118,360,258
2013	26,676,405	50	13,338,202	13,338,202	645,600	12,692,602	21,154,337	83,708,757	139,514,595
2014	27,274,433	50	13,637,217	13,637,217	645,600	12,991,617	21,652,694	96,700,374	161,167,290
2015	27,832,682	50	13,916,341	13,916,341	645,600	13,270,741	22,117,901	109,971,115	183,285,191
2016	28,376,702	50	14,188,351	14,188,351	645,600	13,542,751	22,571,252	123,513,866	205,856,443
2017	28,917,941	50	14,458,970	14,458,970	645,600	13,813,370	23,022,284	137,327,236	228,878,727
2018	29,428,066	50	14,714,033	14,714,033	645,600	14,068,433	23,447,388	151,395,669	252,326,115
2019	29,938,855	50	14,969,428	14,969,428	645,600	14,323,828	23,873,046	165,719,497	276,199,161
2020	30,485,032	50	15,242,516	15,242,516	645,600	14,596,916	24,328,193	180,316,413	300,527,354
2021	31,055,639	50	15,527,819	15,527,819	645,600	14,882,219	24,803,699	195,198,632	325,331,053

NOTES:

1. The waste generation quantities (Column B) were estimated using the CIWMB's Adjustment Methodology, and utilizing the employment, population, and taxable sales projections from the UCLA long-term forecast for Los Angeles County, dated June 2007.
2. The waste generation estimate for 2006 is based on actual disposal quantities at transformation facilities and Class III landfill's located in and out-of-County by jurisdictions in Los Angeles County. A 50 percent diversion rate is assumed throughout the planning period (2006-2021). These tonnages do not include inert waste disposed of at inert waste landfills. The cumulative Class III landfill disposal need does not include the quantites managed through export and alternative technologies.
3. The 2006 transformation and Class III landfill disposal quantity (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 the Los Angeles County Department of Public Works as part of the 2006 Disposal Quantity Reporting data.
4. Columns I and J (Cumulative Disposal Need) are the sum of the projected Class III landfill disposal needs of jurisdictions in Los Angeles County, beginning January 2006 through the end of 2021.
5. The quantities in Columns H and J were obtained from Columns G and I, respectively, using an in-place solid waste (landfill) density of 1,200 pounds per cubic yard.

Source : Los Angeles County Department of Public Works, SWIMS (May 2008), and 2006 Annual Report on the Los Angeles County Countywide Siting Element, June 2008

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TABLE 4-8
REMAINING PERMITTED COMBINED DISPOSAL CAPACITY OF EXISTING SOLID WASTE DISPOSAL FACILITIES IN LOS ANGELES COUNTY
As of December 31, 2006

Facility	Solid Waste Facility Permit Number	Location: City or County Unincorporated Area	Operation days/week	12/31/2006 SWFP Maximum Daily Capacity: Tons	LUP/CUP Maximum Daily Capacity: Tons	2006 Average Daily Disposal 6 days/week (Tons) (See Note 1): In-County	Out-of-County	Total	MSW Disposed in 2006 (Million Tons): In-County	Out-of-County	Total	Estimated Remaining Permitted Capacity (as of December 31, 2006) (See Note 2): Million Tons	Million (a) Cubic Yards	Comments and solid waste flow restrictions
MAJOR AND MINOR CLASS III LANDFILLS														
Antelope Valley Landfill I	19-AA-0009	Palmdale	6	1,400		977	2.09	979	0.305	0.001	0.305	9.19	11.07	Remaining permitted capacity does not include the expansion in the bridge area between Landfill Unit1 and Landfill Unit 2. See footnote (c).
Landfill II	19-AA-5624	Palmdale		1800 (b)	1,800									
Bradley	19-AR-0008	Los Angeles	6	10,000	---	1,447	5.20	1,452	0.451	0.002	0.453	0.09	0.11	Landfill closed (upon expiration of LUP in 4/14/2007).
Burbank[e]	19-AA-0040	Burbank	5	240	---	125	0.00	125	0.039	0.000	0.039	3.00	5.00	Limited to the City of Burbank's use only and provided waste is collected by the City's crews.
Calabasas	19-AA-0056	Unincorporated Area	6	3,500	---	1,492	130.74	1,623	0.466	0.041	0.506	7.89	17.16	Limited to the Calabasas Wasteshed as defined by Los Angeles County Ordinance #91-0003.
Chiquita Canyon	19-AA-0052	Unincorporated Area	6	6,000	6,000	4,853	79.54	4,933	1.514	0.025	1.539	11.05	14.87	Proposed new expansion in 2008. Current LUP limits waste disposal to 30,000 tons per week. LUP expires 11/24/2019. New CUP pending.
Lancaster	19-AA-0050	Unincorporated Area	6	1,700	1,700	1,221	22.47	1,243	0.381	0.007	0.388	13.48	17.28	LUP expires 8/1/2012.
Pebbly Beach[i]	19-AA-0061	Unincorporated Area	7	49	49	9	0.00	9	0.003	0.000	0.003	0.09	0.10	LUP expires 07/29/2028
Puente Hills	19-AA-0053	Unincorporated Area	6	13,200	13,200	12,079	174.38	12,253	3.769	0.054	3.823	26.60	48.36	CUP limits waste disposal to 72,000 tons per week. Does not accept waste generated from the City of Los Angeles and Orange County. Landfill closes on 10/31/2013. An intermodal facility with a design capacity of 8,000 tpd, is being developed by County Sanitation Districts of Los Angeles County (CSD) as part of a waste-by-rail system, to transport waste to Mesquite Regional and Eagle Mountain Landfills. However, Puente Hills landfill (PHL) has to meet specified milestones or demonstrate best faith efforts as specified in Condition 58 of the CUP. The milestones are as follows: (1) To begin development of at least one remote landfill by December 31, 2007, or be assessed a penalty of 2,000 tpd in PHL's daily maximum permitted refuse intake capacity (i.e., 13,200 tpd); (2) For at least one remote landfill to become operational by December 31, 2008, or CSD would be assessed a penalty of 1,000 tpd reduction in PHL's daily maximum permitted refuse intake capacity; and (3) For th waste-by-rail system to become operational by December 31, 2009, or CSD would be assessed a penalty of 2,000 tpd reduction every year thereafter in PHL's maximum permitted refuse intake capacity.
San Clemente[e]	19-AA-0063	Unincorporated Area	2	10	---	3	0.00	3	0.001	0.000	0.001	0.04	0.33	Landfill owned and operated by the U. S. Navy.
Scholl Canyon	19-AA-0012	Glendale	6	3,400	---	1,431	0.00	1,431	0.447	0.000	0.447	6.40	14.22	Limited to the Scholl Canyon Wasteshed as defined by City of Glendale Ordinance #4782. Based on the remaining capacity of 6.4 million tons as of December 31, 2006, the landfill will exhaust the exisiting capacity in 2020 based on 1,400 tpd disposal rate (308 operating days and 0.45 tons per cu.yd. density). The proposed expansion will add an additional 5 or 6 million tons of capacity and extend its life to 12 or 15 years, respectively. Proposed expansion will not increase the daily disposal rate beyond the permitted disposal rate of 3,400 tpd.
Sunshine Canyon (County side)	19-AA-0853	Unincorporated Area	6	6,600	6,600	2,693	0.00	2,693	0.840	0.000	0.840	1.38	1.85	County LUP limits the weekly net tonnage to 36,000 tons. City of Los Angeles granted a LUP for the expansion of the landfill into the City on 12/8/99. City LUP limits the weekly tonnage to 30,000 tons. Total expansion capacity (County and City) will provide an additional 72.4 million tons as of May 24, 2007. Under the Replacement CUP that became effective May 24, 2007, Sunshine Canyon Landfill is prohibitted from accepting out-of-County waste.
Sunshine Canyon (City side)	19-AR-0002-2	Los Angeles	6	5,500	5,500	4,118	-	4,118	1.285	0.000	1.285	4.26	5.72	
Whittier (Savage Canyon)[i]	19-AH-0001	Whittier	6	350	---	268	2.23	270	0.084	0.001	0.084	4.36	7.26	Limited to waste from the City of Whittier or waste haulers contracted with the city.
TOTAL FOR CLASS III LANDFILLS				51,949		30,715	416.65	31,132	9.583	0.130	9.713	87.83	143.33	
INERT WASTE LANDFILLS (PERMITTED INERT WASTE LANDFILLS ONLY)														
Azusa Land Reclamation	19-AA-0013	Azusa	6	6,500	---	324	213.90	538	0.101	0.067	0.168	36.54 (d)	44.56	No comment
Brand Park [h]	19-AA-0006	Glendale	5	100	---	0	0.00	0	0.000	0.000	0.000	0.69	0.35	Limited to use by City of Glendale Department of Public Works only.
Peck Road Gravel Pit	19-AA-0838	Monrovia	6	1,210	---	2	0.00	2	0.001	0.000	0.001	9.79	6.53	No comment
TOTAL FOR PERMITTED INERT WASTE LANDFILLS				7,810		326	213.90	540	0.102	0.067	0.168	47.02	51.43	
WASTE-TO-ENERGY FACILITIES														
Commerce Refuse-To-Energy Facility	19-AA-0506	Commerce	5	1,000	---	321	13	334	0.100	0.004	0.104	466.64 (e)	777.73	Assumed to remain operational during the 15 year planning period.
Southeast Resource Recovery Facility	19-AK-0083	Long Beach	7	2,240	---	1,402	210	1,612	0.438	0.065	0.503	1602.45 (f)	2,670.75	Assumed to remain operational during the 15 year planning period.
TOTAL FOR WASTE-TO-ENERGY FACILITIES (g)				3,240		1,723	223	1,947	0.538	0.070	0.607	2,069.09	3,448.48	
GRAND TOTAL				62,999		32,765	854	33,619	10.223	0.266	10.489	N/A	N/A	
OUT-OF-COUNTY DISPOSAL	**Waste Exported in 2006 by jurisdictions in Los Angeles County to Out-of-County Class III Disposal Facilities: 1,782,609 tons at 5,713** tpd (average daily rate)													

Notes:

1. Disposal quantities are based on actual tonnages reported by owners/operators of permitted solid waste disposal facilities to the Department of Public Works through the State Disposal Reporting System. The 2006 disposal tonnages listed above are based on tonnage figures for the period of January 1 through December 31, 2006.
2. Estimated Remaining Permitted Capacity based on landfill owner/operator responses to the written survey conducted by DPW in August 2007 as well as a review of site specific permit criteria established by local land use agencies, LEAs, CRWQCBs, and the SCAQMD.

Footnotes:

(a) Conversion factor based on in-place solid waste density/compaction rate if provided by landfill operators, otherwise a conversion factor of 1,200 lb/cy was used for class III landfill and for permitted inert waste landfill.

(b) Antelope Valley Landfill's daily capacity of 1,800 tons is based on the SWFP issued on 12/26/95 for the unincorporated County landfill area (including the expansion capacity).

(c) The portion of the landfill within the previously unincorporated County area was annexed to the City of Palmdale on August 27, 2003.

(d) By Court order, on 10/2/96, the CRWQCB-Los Angeles region ordered the Azusa Land Reclamation Landfill to stop accepting MSW. 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.

(e) Based on SWFP limit of 2,800 tons per week, expressed as a daily average, six days/week.

(f) Based on EPA limit of 500,000 tons per year, expressed as a daily average, six days/week.

(g) Tonnage expressed as a daily average, six days/week.

(h) Brand Park Landfill is permitted as a Minor Class III Landfill but currently only accepts inert waste, and therefore listed with the permitted inert waste landfills.

(i) Minor Class III landfills are landfills with permitted daily intake capacity of less than 800 tpd. However, Brand Park Landfill is not listed under minor Class III landfill but listed under permitted inert waste landfill because it currently only accepts inert waste.

Abbreviations:

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

Source : Los Angeles County Department of Public Works, SWIMS (May 2008), and 2006 Annual Report on the Los Angeles County Countywide Siting Element, June 2008

Table 4-9

Estimate of Potential Available Conversion and other Alternative Technology Facilities Capacity During the Planning Period (2006-2021)

Planning Period	Proposed County of Los Angeles Conversion Technology Facility Projects	Proposed City of Los Angeles Alternative Technology Facility Projects			Total Proposed County and City of Los Angeles Conversion and Alternative Technology Facility Projects	Additional Future Conversion and Alternative Technology Facility Projects		Total Conversion and Alternative Technology Facility Projects	
	Demonstration facility	Demonstration facilities (combined capacity of both Alternative and Conversion Technology facilities)	Commercial scale facilities (combined capacity of both Alternative and Conversion Technology facilities)	Total Demonstration plus commercial scale facilities (combined capacity of both Alternative and Conversion Technology facilities)	Demonstration plus commercial scale facilities (combined capacity of both Alternative and Conversion Technology facilities) (Actual)	Demonstration plus commercial scale facilities (Realistic Case)	Demonstration plus commercial scale facility (Optimistic Case)	Demonstration plus commercial scale facility (Realistic Case)	Demonstration plus commercial scale facility (Optimistic Case)
Year	**tpd**	**tpd**	**tpd**	**tpd**	**tpd**	**tpd**	**tpd**	**tpd**	**tpd**
2006	0	0	0	**0**	**0**	**0**	**0**	**0**	**0**
2007	0	0	0	**0**	**0**	**0**	**0**	**0**	**0**
2008	0	0	0	**0**	**0**	**0**	**0**	**0**	**0**
2009	0	0	0	**0**	**0**	**0**	**0**	**0**	**0**
2010	0	200	1,000	**1,200**	**1,200**	**0**	**0**	**1,200**	**1,200**
2011	0	200	1,000	**1,200**	**1,200**	**300**	**300**	**1,500**	**1,500**
2012	0	200	1,000	**1,200**	**1,200**	**800**	**800**	**2,000**	**2,000**
2013	0	200	1,000	**1,200**	**1,200**	**1,300**	**1,300**	**2,500**	**2,500**
2014	500	200	1,000	**1,200**	**1,700**	**1,300**	**2,800**	**3,000**	**4,500**
2015	600	200	2,000	**2,200**	**2,800**	**1,200**	**3,700**	**4,000**	**6,500**
2016	700	200	2,000	**2,200**	**2,900**	**2,100**	**5,600**	**5,000**	**8,500**
2017	800	200	2,000	**2,200**	**3,000**	**3,000**	**9,500**	**6,000**	**12,500**
2018	900	200	2,000	**2,200**	**3,100**	**3,900**	**9,900**	**7,000**	**13,000**
2019	1,000	200	3,000	**3,200**	**4,200**	**3,800**	**9,300**	**8,000**	**13,500**
2020	1,100	200	3,000	**3,200**	**4,300**	**4,700**	**10,200**	**9,000**	**14,500**
2021	1,200	200	3,600	**3,800**	**5,000**	**5,000**	**10,000**	**10,000**	**15,000**

Notes:

1. The alternative technology facility projects are in the initial planning stages. Therefore, the above alternative technology facilities capacity are only an estimate and are subject to change as new data and information become available.
2. "tpd" means tons per day, 6 days per week.
3. "N/A" means not available.
4. "Actual" reflects the actual total capacity of proposed County and City of Los Angeles conversion and alternative technology facilities projects (including demonstration anhd commercial scale facilities).
5. "Best case" reflects the total conversion and alternative technology facilities capacity assumed in the 2006 Annual Report for Los Angeles County Countywide Siting Element, except for the year 2006 where 1,200 tpd was used instead of 1,000 tpd. This assumption is based on the realistic expectation of the development of conversion and alternative technology facilities avail Los Angeles County jurisdictions, taking into account the planned development of City and County of Los Angeles projects. Also, this assumes that other alternative technology projects will be developed in the County or Southern California Region within the planning period by other jurisdictions and entities for example the BlueFire Ethanol Project.
6. "Optimistic case" reflects the total capacity of conversion and alternative technology facilities (including demonstration and commercial scale facilities) that would result in zero export from Los Angeles County. This assumption is based on the optimistic expectation of the development of conversion and alternative technology facilities available to Los Angeles County jurisdictic taking into account the planned development of City and County of Los Angeles projects. Also, this assumes that other alternative technology projects will be developed in the County or Southern California Region within the planning period by other jurisdictions and entities (e.g., BlueFire Ethanol Project).

Assumptions:

1. The current County alternative technology facilities projects are only conversion technology facilities. The City of Los Angeles alternative technology facilities projects could be a mix of conversion and/or non-conversion technology facilities.
2. The demonstration facilities will continue to operate after the commercial scale facilities become operational.
3. The capacity for City of Los Angeles alternative technology demonstration facilities is based on the City's Request for Proposal (RFP) dated February 5, 2007 with a minimum capacity of 20 tpd and a maximum capacity of 200 tpd. However, the maximum capacity of 200 tpd will be used throughout the planning period. The capacity for City of Los Angeles alternative technolo scale facilities is based on the City's RFP with a total minimum capacity of 200 tpd and a maximum capacity of 1,000 tpd. However, the total maximum capacity of 1,000 tpd will be used for the years 2010 through 2014; 2000 tpd for the years 2015 to 2018; 3,000 tpd for the years 2019 and 2020; and 3,600 tpd for the year 2021.
4. The "additional future projects" are additional alternative technology facilities projects that are expected to be implemented within the planning period by the public or private sector to help achieve the projected total conversion/alternative technology facilities capacity.

Table 4-10

Summary 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

Scenarios	Scenarios Table	Utilization of Existing Permitted In-County Class III Landfill Capacity	Utilization of Currently Available Out-of-County Disposal Facility~~ies~~ Capacity[1]	Assuming Realistic Increase~~d~~ in Diversion Rate to 60 percent by 2021	Utilization of Proposed Alternative Technology Facility~~ies~~ capacity (1,000 tpd by 2010 and up to 10,000 tpd by 2021)	Assuming Development of all Proposed Expansions of in-County Class III Landfills	Utilization of Future[2] Available Out-of-County Disposal Facility Capacity[3]	Assuming Optimistic Increase in Diversion Rate (60 percent by 2015 and up to 75 percent by 2020)	Utilization of Optimistic Alternative Technology Facility Capacity (13,000 tpd by 2014 and up to 15,000 tpd by 2021)	Description of the Disposal Capacity Need Analysis Scenarios
Scenario No. 1 (Worst Case Scenario)	Table 4-11	Y	N	N	N	N	N	N	N	- Use of existing in-county class III landfills and transformation facilities only. - No utilization of out-of-County disposal facility~~ies~~ capacity.
Scenario No. 2 (Status Quo Scenario)	Table 4-12	Y	Y	N	N	N	N	N	N	- Use of existing in-County class III landfills and transformation facilities ~~only~~. - Plus utilization of currently available out-of-County disposal facility~~ies~~ capacity.
Scenario No. 3	Table 4-13	Y	Y	Y	N	N	N	N	N	- Use of existing in-County class III landfills and transformation facilities ~~only~~. - Plus utilization of currently available out-of-County disposal facility~~ies~~ capacity. - Plus realistic increase in diversion rate ~~from~~ (50~~%~~percent ~~in~~by 2011 and up to 60~~%~~ percent ~~in~~by 2021).
Scenario No. 4	Table 4-14	Y	Y	Y	Y	N	N	N	N	- Use of existing in-County class III landfills and transformation facilities ~~only~~. - Plus utilization of currently available out-of-County disposal facility~~ies~~ capacity. - Plus realistic increase in diversion rate ~~from~~ (50~~%~~percent ~~in~~by 2011 and up to 60~~%~~percent ~~in~~by 2021). - Plus realistic development of alternative technology facility~~ies~~ capacity (1,000 tpd ~~in~~by 2010 and up to 10,000 tpd ~~in~~by 2021).
Scenario No. 5	Table 4-15	Y	Y	Y	Y	Y	N	N	N	- Use of existing in-County class III landfills and transformation facilities ~~only~~. - Plus utilization of currently available out-of-County disposal facility~~ies~~ capacity. - Plus realistic increase in diversion rate ~~from~~ (50~~%~~percent ~~in~~by 2011 and up to 60~~%~~percent ~~in~~by 2021). - Plus realistic development of alternative technology facility~~ies~~ capacity (1,000 tpd ~~in~~by 2010 and up to 10,000 tpd ~~in~~by 2021). - Plus development of all proposed in-County class III landfill expansions.
Scenario No. 6 (Best Case~~)~~ – Realistic)	Table 4-16	Y	Y	Y	Y	Y	Y	N	N	- Use of existing in-County class III landfills and transformation facilities ~~only~~. - Plus utilization of currently available out-of-County disposal facility~~ies~~ capacity. - Plus realistic increase in diversion rate ~~from~~ (50~~%~~percent ~~in~~by 2011 and up to 60~~%~~percent ~~in~~by 2021). - Plus realistic development of alternative technology facility~~ies~~ capacity (1,000 tpd ~~in~~by 2010 and up to 10,000 tpd ~~in~~by 2021). - Plus development of all proposed in-County class III landfill expansions. - Plus utilization of future available out-of-County disposal facility capacity.
Scenario No. 7 (Optimistic Case Scenario –Optimistic Diversion Rate)	Table 4-17	Y	Y	Y	Y	Y	Y	Y	N	- Use of existing in-County class III landfills and transformation facilities. - Plus utilization of currently available out-of-County disposal facility capacity. - Plus optimistic increase in diversion rate (60 percent by 2013 and up to 75 percent by 2021). - Plus realistic development of alternative technology facility capacity (1,000 tpd by 2010 and up to 10,000 tpd by 2021). - Plus development of all proposed in-County class III landfill expansions. - Plus utilization of future available out-of-County disposal facility capacity.
Scenario No. 8 (Optimistic Case Scenario – Optimistic Alternative Technology Capacity)	Table 4-18	Y	Y	Y	Y	Y	Y	N	Y	- Use of existing in-County class III landfills and transformation facilities. - Plus utilization of currently available out-of-County disposal facility capacity. - Plus realistic increase in diversion rate (50 percent by 2011 and up to 60 percent by 2021). - Plus optimistic development of alternative technology facility capacity (13,000 tpd by 2014 and up to 15,000 tpd by 2021). - Plus development of all proposed in-County class III landfill expansions. - Plus utilization of future available out-of-County disposal facility capacity.

Footnotes:

[1] The "currently available" out-of-County disposal facility~~ies~~ capacity (1) includes the disposal capacity of the out-of-County class III landfills that are currently providing the out-of-County disposal capacity for solid waste that are currently exported from Los Angeles County jurisdiction (i.e., Frank R. Bowerman Sanitary Landfill, Olinda Alpha Sanitary Landfill, Prima Deshecha Canada Sanitary Landfill, El Sobrante Landfill, Mid-Valley Sanitary Landfill and Simi Valley Landfill and Recycling Center); (2) takes into consideration of the decrease in the available out-of-County disposal capacity upon the expiration of the export agreements with Orange County. (Note: The additional export capacity from proposed expansion of the out-of-County landfills are not included); and (3) includes the 8,000 tpd out-of-County disposal capacity that can be accessed at Mesquite Regional Landfill through the CSD Waste-by-Rail system.

[2] The "Future available" out-of-County disposal facility~~ies~~ capacity includes: (1) The currently available out-of-County disposal facility capacity (see Footnote No. 1 above); (2) the 4,000 tpd through CSD's waste-by-truck program to Mesquite Regional Landfill; and, (3) expansion of the available out-of-County Class III Landfills.~~:~~

[3] It should be noted that the impact of the expansions of the various out-of-County landfills would not result in a net increase in available daily export capacity, but would result only in extension of the life of Simi Valley Landfill and Recycling Center. ~~from 2026 to 2100.~~ Though expansion of Olinda Alpha Sanitary Landfill and Frank R. Bowerman Sanitary Landfill will result in increase in their lifespan from 2013 to 2031 and 2022 to 2053 respectively, the additional disposal capacity due to the expansion will not be available until after the export agreement with Burrtec/EDCC, CSD, and Republic Industries (for Los Angeles County waste) to Orange County Landfills has expired.

TABLE 4-11

SCENARIO NO. 1 (WORST CASE SCENARIO)

DISPOSAL CAPACITY NEED ANALYSIS (EXCLUDING INERT WASTE LANDFILLS)

UTILIZATION OF ONLY EXISTING IN-COUNTY CLASS III LANDFILLS AND TRANSFORMATION FACILITIES

DURING THE PLANNING PERIOD

(Based on January 1, 2006 through December 31, 2006 six-day average tonnages and assuming AB 939 diversion is fully implemented)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
										R	R				L	R	R	R	R	R	R				
Year	Daily Waste Generation Rate	Diversion Rate	Total Daily Disposal Need	Daily Waste Import	Maximum Daily Transformation Capacity	Daily Maximum Available Alternative Technology Capacity	Class III Landfill Daily Disposal Need	Antelope Valley	Bradley	Burbank	Calabasas	Chiquita	Lancaster	Pebbly Beach	Puente Hills	San Clemente	Scholl	Sunshine County	Sunshine City	Combined Sunshine City/County	Whittier	Total Expected Daily Tonnage and Remaining Permitted Landfill Capacity	Daily Export Need	Available Daily Out-of-County Disposal Capacity	Remaining Daily Disposal Capacity Need (Shortfall)
								Expected daily tonnage 6-day average (tpd-6)														tpd-6			
								Remaining permitted landfill capacity at year's end, Million Tons														Milion Tons			
	(tpd-6)	(percent)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)																(tpd-6)	(tpd-6)	(tpd-6)
2006	76,305	49%	37,298	854	1,724	0	36,428	977	1,447	125	1,492	4,853	1,221	8.64	12,079	2.7	1,431	2,693	4,118		268	30,715	5,713	N/A	0
								9.2	0.1	3.0	7.9	11.0	13.5	0.09	26.6	0.04	6.4	1.4	4.3		4.4	87.8			
2007	76,771	48%	36,918	764	2,069	0	35,613	1,400	200	126	1,501	5,000	1,700	8.70	12,500	2.7	1,440	3,685	2,065		269	29,898	5,715	N/A	0
								8.8	C	3.0	7.4	9.5	12.9	0.08	22.7	0.04	6.0	0.2	3.6		4.3	78.5			
2008	77,772	50%	38,886	900	2,069	0	37,717	1,800		127	1,521	5,000	1,700	8.80	12,500	2.7	1,459	3,000	4,500		273	31,892	5,825	N/A	**-5,825**
								8.2		2.9	7.0	7.9	12.4	0.08	18.8	0.04	5.5	C	2.2		4.2	69.2			
2009	78,947	50%	39,474	900	2,069	0	38,305	1,800		129	1,544	5,000	1,700	8.93	13,200	2.7	1,481		4,500		277	29,643	8,662	N/A	**-8,662**
								7.6		2.9	6.5	6.4	11.9	0.08	14.7	0.04	5.0		0.8		4.1	60.0			
2010	80,583	50%	40,292	900	2,069	0	39,123	1,800		132	1,576	5,000	1,700	9.12	13,200	2.8	1,512		4,500		283	29,714	9,408	N/A	**-9,408**
								7.1		2.8	6.0	4.8	11.4	0.08	10.6	0.04	4.6		C		4.0	51.3			
2011	82,190	50%	41,095	900	2,069	0	39,926	1,800		134	1,607	5,000	1,700	9.30	13,200	2.9	1,542				289	25,284	14,642	N/A	**-14,642**
								6.5		2.8	5.5	3.2	10.8	0.07	6.4	0.04	4.1				3.9	43.4			
2012	83,798	50%	41,899	900	2,069	0	40,730	1,800		137	1,639	5,000	1,700	9.48	13,200	2.9	1,572				294	25,354	15,376	N/A	**-15,376**
								5.9		2.8	5.0	1.7	C	0.07	2.3	0.04	3.6				3.8	25.2			
2013	85,501	50%	42,751	900	2,069	0	41,582	1,800		140	1,672	5,000		9.67	13,200	3.0	1,604				300	23,729	17,853	N/A	**-17,853**
								5.4		2.7	4.4	0.1		0.07	C	0.03	3.1				3.7	19.6			
2014	87,418	50%	43,709	900	2,069	0	42,540	1,800		143	1,710	5,000		9.89		3.0	1,640				307	10,612	31,928	N/A	**-31,928**
								4.8		2.7	3.9	C		0.06		0.03	2.6				3.6	17.7			
2015	89,207	50%	44,604	900	2,069	0	43,435	1,800		146	1,745			10.09		3.1	1,674				313	5,690	37,744	N/A	**-37,744**
								4.3		2.6	3.4			0.06		0.03	2.1				3.5	15.9			
2016	90,951	50%	45,475	900	2,069	0	44,306	1,800		149	1,779			10.29		3.2	1,706				319	5,766	38,540	N/A	**-38,540**
								3.7		2.6	2.8			0.06		0.03	1.5				3.4	14.1			
2017	92,686	50%	46,343	900	2,069	0	45,174	1,800		151	1,813			10.49		3.2	1,739				325	5,842	39,332	N/A	**-39,332**
								3.1		2.5	2.2			0.05		0.03	1.0				3.3	12.3			
2018	94,321	50%	47,160	900	2,069	0	45,991	1,800		154	1,845			10.67		3.3	1,769				331	5,913	40,078	N/A	**-40,078**
								2.6		2.5	1.7			0.05		0.03	0.4				3.2	10.5			
2019	95,958	50%	47,979	900	2,069	0	46,810	1,800		157	1,877			10.86		3.3	1,800				337	5,985	40,825	N/A	**-40,825**
								2.0		2.4	1.1			0.05		0.03	C				3.1	9			
2020	97,708	50%	48,854	900	2,069	0	47,685	1,800		160	1,911			11.06		3.4					343	4,228	43,457	N/A	**-43,457**
								1.5		2.4	0.5			0.04		0.03					3.0	7.4			
2021	99,537	50%	49,769	900	2,069	0	48,600	1,800		163	1,947			11.26		3.5					349	4,273	44,326	N/A	**-44,326**
								0.9		2.3	C			0.04		0.03					2.9	6.2			

NOTES/ASSUMPTIONS

1.- The Waste Generation Rate (excluding the inert waste being handled at inert waste landfills) was estimated using the CIWMB's adjustment methodology, utilizing population projection, employment and taxable sales projections available from UCLA Longterm Forecast for Los Angeles County, dated June 2007.

2.- There is no remaining daily disposal capacity need (shortfall) for 2006 and 2007 because the total export need of 5,713 tpd and 5,715 tpd, respectively, were actually exported to out-of-County landfills. Since there was zero remaining daily disposal capacity need in 2006 and 2007, the diversion rate is calculated to be 49 percent and 48 percent, respectively, in order to maintain consistency of this analysis with the 2006 generation rate of 23,807,137 tons (see Table 4-5). However, the actual unofficial Waste Board's diversion rate for Los Angeles County in 2006 is 54.7 percent. This uses the default diversion rate for all jurisdictions plus the Taxable Sales deflator Index value. The rate does not include transformation credit, or disposal modifications requested by jurisdictions. Also, a 50 percent diversion rate is assumed from 2008 through 2021.

3.- Expected daily tonnage rates are based on the permitted daily capacity for the Antelope Valley, Chiquita, Lancaster, Puente Hills, and Sunshine Canyon landfills. The expected daily tonnage rate for Burbank, Calabasas, Pebbly Beach, San Clemente, Scholl, and Whittier (Savage) landfills are based on the average daily tonnages for

4.- "tpd-6" means tons per day, 6-day per week average.

5.- Class III Landfill Disposal Need refers to the amount of solid waste generated in or imported into Los Angeles County that needs to be disposed in Class III Landfills located within Los Angeles County.

6.- Class III Landfill Export Need refers to the daily amount of solid waste in need of disposal that exceeds the combined daily permitted and expected capacity of all in-County Class III landfills and transformation facilities. The amount shown for each year were taken care of by the currently available out-of-County class III landfill capacity.

7.- 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 which are currently accepting solid waste from Los Angeles County.

8.- Remaining daily disposal capacity need (shortfall) refers to the daily amount of solid waste in need of disposal that exceeds (in excess) of the available in-County and out-of-County (export) disposal capacity.

9.- Existing export quantities are considered part of the Class III landfill export need and are considered in determining the remaining daily disposal capacity need (shortfall).

10.- 2006 import waste quantities are based on the 2007 Landfill Survey for the period of 1/1/06 to 12/31/06. Import waste quantities for 2006 (854) and 2007 (764) are based on SWIMS data, import waste quantities for 2008 and beyond are assumed to be 900 tpd.

11.- Use of existing in-County Class III landfill and transformation facilities only (Worst Case).

LEGEND:

C - Closure due to exhausted capacity
E - Potential expansion of existing class III landfill
L - Does not accept waste from the City of Los Angeles and Orange County
R - Restricted Wasteshed
CIWMB - California Integrated Waste Management Board

Source : Los Angeles County Department of Public Works, SWIMS (May 2008), and 2006 Annual Report on the Los Angeles County Countywide Siting Element, June 2008

TABLE 4-12
SCENARIO NO. 2 (STATUS QUO SCENARIO)
DISPOSAL CAPACITY NEED ANALYSIS (EXCLUDING INERT WASTE LANDFILLS)
UTILIZATION OF EXISTING IN-COUNTY CLASS III LANDFILLS AND TRANSFORMATION FACILITIES
AND UTILIZATION OF CURRENTLY AVAILABLE OUT-OF-COUNTY DISPOSAL CAPACITY
DURING THE PLANNING PERIOD
(Based on January 1, 2006 through December 31, 2006 six-day average tonnages and assuming AB 939 diversion is fully implemented)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
										R	R				L	R	R	R	R	R	R				
Year	Daily Waste Generation Rate	Diversion Rate	Total Daily Disposal Need	Daily Waste Import	Maximum Daily Transformation Capacity	Daily Maximum Available Alternative Technology Capacity	Class III Landfill Daily Disposal Need	Antelope Valley	Bradley	Burbank	Calabasas	Chiquita	Lancaster	Pebbly Beach	Puente Hills	San Clemente	Scholl	Sunshine County	Sunshine City	Combined Sunshine City/County	Whittier	Total Expected Daily Tonnage and Remaining Permitted Landfill Capacity	Export Need	Available Daily Out-of-County Disposal Capacity	Remaining Daily Disposal Capacity Need (Shortfall)
								Expected daily tonnage 6-day average (tpd-6)																	
								Remaining permitted landfill capacity at year's end, Million Tons														tpd-6 Milion Tons			
	(tpd-6)	(percent)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)																(tpd-6)	(tpd-6)	(tpd-6)
2006	76,305	49%	37,298	854	1,724	0	36,428	977	1,447	125	1,492	4,853	1,221	8.6	12,079	2.7	1,431	2,693	4,118		268	30,715	5,713	5,713	**0**
								9.2	0.1	3.0	7.9	11.0	13.5	0.09	26.6	0.04	6.4	1.4	4.3		4.4	87.8			
2007	76,771	48%	36,918	764	2,069	0	35,613	1,400	200	126	1,501	5,000	1,700	8.7	12,500	2.7	1,440	3,685	2,065		269	29,898	5,715	5,715	**0**
								8.8	**C**	3.0	7.4	9.5	12.9	0.08	22.7	0.04	6.0	0.2	3.6		4.3	78.5			
2008	77,772	50%	38,886	900	2,069	0	37,717	1,800		127	1,521	5,000	1,700	8.8	12,500	2.7	1,459	3,000	4,500		273	31,892	5,825	5,715	**-110**
								8.2		2.9	7.0	7.9	12.4	0.08	18.8	0.04	5.5	**C**	2.2		4.2	69.2			
2009	78,947	50%	39,474	900	2,069	0	38,305	1,800		129	1,544	5,000	1,700	8.9	13,200	2.7	1,481		4,500		277	29,643	8,662	5,715	**-2,947**
								7.6		2.9	6.5	6.4	11.9	0.08	14.7	0.04	5.0		0.8		4.1	60.0			
2010	80,583	50%	40,292	900	2,069	0	39,123	1,800		132	1,576	5,000	1,700	9.1	13,200	2.8	1,512		4,500		283	29,714	9,408	5,715	**-3,693**
								7.1		2.8	6.0	4.8	11.4	0.08	10.6	0.04	4.6		**C**		4.0	51.3			
2011	82,190	50%	41,095	900	2,069	0	39,926	1,800		134	1,607	5,000	1,700	9.3	13,200	2.9	1,542				289	25,284	14,642	5,715	**-8,927**
								6.5		2.8	5.5	3.2	10.8	0.07	6.4	0.04	4.1				3.9	43.4			
2012	83,798	50%	41,899	900	2,069	0	40,730	1,800		137	1,639	5,000	1,700	9.5	13,200	2.9	1,572				294	25,354	15,376	5,715	**-9,661**
								5.9		2.8	5.0	1.7	**C**	0.07	2.3	0.04	3.6				3.8	25.2			
2013	85,501	50%	42,751	900	2,069	0	41,582	1,800		140	1,672	5,000		9.7	13,200	3.0	1,604				300	23,729	17,853	5,715	**-12,138**
								5.4		2.7	4.4	0.1		0.07	**C**	0.03	3.1				3.7	19.6			
2014	87,418	50%	43,709	900	2,069	0	42,540	1,800		143	1,710	5,000		9.9		3.0	1,640				307	10,612	31,928	12,873	**-19,055**
								4.8		2.7	3.9	**C**		0.06		0.03	2.6				3.6	17.7			
2015	89,207	50%	44,604	900	2,069	0	43,435	1,800		146	1,745			10.1		3.1	1,674				313	5,690	37,744	12,873	**-24,871**
								4.3		2.6	3.4			0.06		0.03	2.1				3.5	15.9			
2016	90,951	50%	45,475	900	2,069	0	44,306	1,800		149	1,779			10.3		3.2	1,706				319	5,766	38,540	11,206	**-27,334**
								3.7		2.6	2.8			0.06		0.03	1.5				3.4	14.1			
2017	92,686	50%	46,343	900	2,069	0	45,174	1,800		151	1,813			10.5		3.2	1,739				325	5,842	39,332	11,206	**-28,126**
								3.1		2.5	2.2			0.05		0.03	1.0				3.3	12.3			
2018	94,321	50%	47,160	900	2,069	0	45,991	1,800		154	1,845			10.7		3.3	1,769				331	5,913	40,078	11,206	**-28,872**
								2.6		2.5	1.7			0.05		0.03	0.4				3.2	10.5			
2019	95,958	50%	47,979	900	2,069	0	46,810	1,800		157	1,877			10.9		3.3	1,800				337	5,985	40,825	11,206	**-29,619**
								2.0		2.4	1.1			0.05		0.03	**C**				3.1	8.7			
2020	97,708	50%	48,854	900	2,069	0	47,685	1,800		160	1,911			11.1		3.4					343	4,228	43,457	11,206	**-32,251**
								1.5		2.4	0.5			0.04		0.03					3.0	7.4			
2021	99,537	50%	49,769	900	2,069	0	48,600	1,800		163	1,947			11.3		3.5					349	4,273	44,326	11,206	**-33,120**
								0.9		2.3	**C**			0.04		0.03					2.9	6.2			

NOTES/ASSUMPTIONS:

1.- The Waste Generation Rate (excluding the inert waste being handled at inert waste landfills) was estimated using the CIWMB's adjustment methodology, utilizing population projection, employment and taxable sales projections available from UCLA Longterm Forecast for Los Angeles County, dated June 2007.

2.- There is no remaining daily disposal capacity need (shortfall) for 2006 and 2007 because the total export need of 5,713 tpd and 5,715 tpd, respectively, were actually exported to out-of-County landfills. Since there was zero remaining daily disposal capacity need in 2006 and 2007, the diversion rate is calculated to be 49 percent and 48 percent, respectively, in order to maintain consistency of this analysis with the 2006 generation rate of 23,807,137 tons (see Table 4-5). However, the actual unofficial Waste Board's diversion rate for Los Angeles County in 2006 is 54.7 percent. This uses the default diversion rate for all jurisdictions plus the Taxable Sales deflator Index value. The rate does not include transformation credit, or disposal modifications requested by jurisdictions. Also, a 50 percent diversion rate is assumed from 2008 through 2021.

3.- Expected daily tonnage rates are based on the permitted daily capacity for the Antelope Valley, Chiquita, Lancaster, Puente Hills, and Sunshine Canyon landfills. The expected daily tonnage rate for Burbank, Calabasas, Pebbly Beach, San Clemente, Scholl, and Whittier (Savage) landfills are based on the average daily tonnages for the period of 1/1/06 to 12/31/06. Expected daily tonnage rate for Bradley Landfill is based on the fact that the Landfill remained open through April 14, 2007. Puente Hills Landfill's permitted daily capacity is based on the CUP requirement and the daily disposal capacity will be reduced if waste-by-rail is not implemented during the specified benchmark dates.

4.- "tpd-6" means tons per day, 6-day per week average.

5.- Class III Landfill Disposal Need refers to the amount of solid waste generated in or imported into Los Angeles County that needs to be disposed in Class III Landfills located within Los Angeles County.

6.- Class III Landfill Export Need refers to the daily amount of solid waste in need of disposal that exceeds the combined daily permitted and expected capacity of all in-County Class III landfills and transformation facilities. The amount shown for each year were taken care of by the currently available out-of-County class III landfill capacity.

7.- 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 which are currently accepting solid waste from Los Angeles County.

8.- Remaining daily disposal capacity need (shortfall) refers to the daily amount of solid waste in need of disposal that exceeds (in excess) of the available in-County and out-of-County (export) disposal capacity.

9.- Existing export quantities are considered part of the Class III landfill export need and are considered in determining the remaining daily disposal capacity need (shortfall).

10.- 2006 import waste quantities are based on the 2007 Landfill Survey for the period of 1/1/06 to 12/31/06. Import waste quantities for 2006 (854) and 2007 (764) are based on SWIMS data, import waste quantities for 2008 and beyond are assumed to be 900 tpd.

11.- Use of existing in-County Class III landfill and transformation facilities, and utilization of currently available out-of-County disposal facilities capacity (Status Quo).

LEGEND:

C - Closure due to exhausted capacity
E - Potential expansion of existing class III landfill
L - Does not accept waste from the City of Los Angeles and Orange County
R - Restricted Wasteshed
CIWMB - California Integrated Waste Management Board

Source : Los Angeles County Department of Public Works, SWIMS (May 2008), and 2006 Annual Report on the Los Angeles County Countywide Siting Element, June 2008

TABLE 4-13
SCENARIO NO. 3
DISPOSAL CAPACITY NEED ANALYSIS (EXCLUDING INERT WASTE LANDFILLS)
UTILIZATION OF EXISTING IN-COUNTY CLASS III LANDFILLS AND TRANSFORMATION FACILITIES,
UTILIZATION OF CURRENTLY AVAILABLE OUT-OF-COUNTY DISPOSAL CAPACITY, AND REALISTIC INCREASE IN DIVERSION RATE (UP TO 60 PERCENT BY 2020)
DURING THE PLANNING PERIOD
(Based on January 1, 2006 through December 31, 2006 six-day average tonnages and assuming AB 939 diversion is fully implemented)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
										R	R				L	R	R	R	R	R	R				
Year	Daily Waste Generation Rate	Diversion Rate	Total Daily Disposal Need	Daily Waste Import	Maximum Daily Transformation Capacity	Daily Maximum Available Alternative Technology Capacity	Class III Landfill Daily Disposal Need	Antelope Valley	Bradley	Burbank	Calabasas	Chiquita	Lancaster	Pebbly Beach	Puente Hills	San Clemente	Scholl	Sunshine County	Sunshine City	Combined Sunshine City/County	Whittier	Total Expected Daily Tonnage and Remaining Permitted Landfill Capacity tpd-6 Milion Tons	Export Need	Available Daily Out-of-County Disposal Capacity	Remaining Daily Disposal Capacity Need (Shortfall)
								Expected daily tonnage 6-day average (tpd-6)																	
								Remaining permitted landfill capacity at year's end, Million Tons																	
	(tpd-6)	(percent)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)																(tpd-6)	(tpd-6)	(tpd-6)
2006	76,305	49%	37,298	854	1,724	0	36,428	977	1,447	125	1,492	4,853	1,221	8.6	12,079	2.7	1,431	2,693	4,118		268	30,715	5,713	5,713	**0**
								9.2	0.1	3.0	7.9	11.0	13.5	0.09	26.6	0.04	6.4	1.4	4.3		4.4	87.8			
2007	76,771	48%	36,918	764	2,069	0	35,613	1,400	200	126	1,501	5,000	1,700	8.7	12,500	2.7	1,440	3,685	2,065		269	29,898	5,715	5,715	**0**
								8.8	**C**	3.0	7.4	9.5	12.9	0.08	22.7	0.04	6.0	0.2	3.6		4.3	78.5			
2008	77,772	50%	38,886	900	2,069	0	37,717	1,800		127	1,521	5,000	1,700	8.8	12,500	2.7	1,459	3,000	4,500		273	31,892	5,825	5,715	**-110**
								8.2		2.9	7.0	7.9	12.4	0.08	18.8	0.04	5.5	**C**	2.2		4.2	69.2			
2009	78,947	50%	39,474	900	2,069	0	38,305	1,800		129	1,544	5,000	1,700	8.9	13,200	2.7	1,481		4,500		277	29,643	8,662	5,715	**-2,947**
								7.6		2.9	6.5	6.4	11.9	0.08	14.7	0.04	5.0		0.8		4.1	60.0			
2010	80,583	50%	40,292	900	2,069	0	39,123	1,800		132	1,576	5,000	1,700	9.1	13,200	2.8	1,512		4,500		283	29,714	9,408	5,715	**-3,693**
								7.1		2.8	6.0	4.8	11.4	0.08	10.6	0.04	4.6		**C**		4.0	51.3			
2011	82,190	51%	40,273	900	2,069	0	39,104	1,800		133	1,592	5,000	1,700	9.2	13,200	2.8	1,527				286	25,249	13,855	5,715	**-8,140**
								6.5		2.8	5.5	3.2	10.8	0.07	6.4	0.04	4.1				3.9	43.4			
2012	83,798	52%	40,223	900	2,069	0	39,054	1,800		134	1,607	5,000	1,700	9.3	13,200	2.9	1,541				288	25,283	13,771	5,715	**-8,056**
								5.9		2.8	5.0	1.7	**C**	0.07	2.3	0.04	3.6				3.8	25.2			
2013	85,501	53%	40,186	900	2,069	0	39,017	1,800		136	1,623	5,000		9.4	13,200	2.9	1,557				291	23,620	15,397	5,715	**-9,682**
								5.4		2.7	4.5	0.1		0.07	**C**	0.03	3.1				3.7	19.7			
2014	87,418	54%	40,212	900	2,069	0	39,043	1,800		137	1,644	5,000		9.5		2.9	1,577				295	10,465	28,578	12,873	**-15,705**
								4.8		2.7	4.0	**C**		0.06		0.03	2.6				3.6	17.8			
2015	89,207	55%	40,143	900	2,069	0	38,974	1,800		139	1,661			9.6		2.9	1,593				298	5,503	33,471	12,873	**-20,598**
								4.3		2.6	3.4			0.06		0.03	2.1				3.6	16.1			
2016	90,951	56%	40,018	900	2,069	0	38,849	1,800		140	1,677			9.7		3.0	1,608				301	5,539	33,311	11,206	**-22,105**
								3.7		2.6	2.9			0.06		0.03	1.6				3.5	14.4			
2017	92,686	57%	39,855	900	2,069	0	38,686	1,800		141	1,692			9.8		3.0	1,623				304	5,573	33,113	11,206	**-21,907**
								3.1		2.5	2.4			0.06		0.03	1.1				3.4	12.6			
2018	94,321	58%	39,615	900	2,069	0	38,446	1,800		142	1,705			9.9		3.0	1,635				306	5,601	32,844	11,206	**-21,638**
								2.6		2.5	1.9			0.05		0.03	0.6				3.3	10.9			
2019	95,958	59%	39,343	900	2,069	0	38,174	1,800		143	1,717			9.9		3.0	1,647				308	5,629	32,544	11,206	**-21,338**
								2.0		2.5	1.3			0.05		0.03	**C**				3.2	9.0			
2020	97,708	60%	39,083	900	2,069	0	37,914	1,800		145	1,732			10.0		3.1					311	4,000	33,914	11,206	**-22,708**
								1.5		2.4	0.8			0.05		0.03					3.1	7.8			
2021	99,537	60%	39,815	900	2,069	0	38,646	1,800		147	1,764			10.2		3.1					317	4,041	34,605	11,206	**-23,399**
								0.9		2.4	**C**			0.05		0.03					3.0	6.3			

NOTES/ASSUMPTIONS:

1.- The Waste Generation Rate (excluding the inert waste being handled at inert waste landfills) was estimated using the CIWMB's adjustment methodology, utilizing population projection, employment and taxable sales projections available from UCLA Longterm Forecast for Los Angeles County, dated June 2007.

2.- There is no remaining daily disposal capacity need (shortfall) for 2006 and 2007 because the total export need of 5,713 tpd and 5,715 tpd, respectively, were actually exported to out-of-County landfills. Since there was zero remaining daily disposal capacity need in 2006 and 2007, the diversion rate is calculated to be 49 percent and 48 percent, respectively, in order to maintain consistency of this analysis with the 2006 generation rate of 23,807,137 tons (see Table 4-5). However, the actual unofficial Waste Board's diversion rate for Los Angeles County in 2006 is 54.7 percent. This uses the default diversion rate for all jurisdictions plus the Taxable Sales deflator Index value. The rate does not include transformation credit, or disposal modifications requested by jurisdictions. Diversion rate is 50 percent for years 2008 through 2010, and will then increase by one percent annually beginning 2011 through 2020.

3.- Expected daily tonnage rates are based on the permitted daily capacity for the Antelope Valley, Chiquita, Lancaster, Puente Hills, and Sunshine Canyon landfills. The expected daily tonnage rate for Burbank, Calabasas, Pebbly Beach, San Clemente, Scholl, and Whittier (Savage) landfills are based on the average daily tonnages for the period of 1/1/06 to 12/31/06. Expected daily tonnage rate for Bradley Landfill is based on the fact that the Landfill remained open through April 14, 2007. Puente Hills Landfill's permitted daily capacity is based on the CUP requirement and the daily disposal capacity will be reduced if waste-by-rail is not implemented during the specified benchmark dates.

4.- "tpd-6" means tons per day, 6-day per week average.

5.- Class III Landfill Disposal Need refers to the amount of solid waste generated in or imported into Los Angeles County that needs to be disposed in Class III Landfills located within Los Angeles County.

6.- Class III Landfill Export Need refers to the daily amount of solid waste in need of disposal that exceeds the combined daily permitted and expected capacity of all in-County Class III landfills and transformation facilities. The amount shown for each year were taken care of by the currently available out-of-County class III landfill capacity.

7.- 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 which are currently accepting solid waste from Los Angeles County.

8.- Remaining daily disposal capacity need (shortfall) refers to the daily amount of solid waste in need of disposal that exceeds (in excess) of the available in-County and out-of-County (export) disposal capacity.

9.- Existing export quantities are considered part of the Class III landfill export need and are considered in determining the remaining daily disposal capacity need (shortfall).

10.- 2006 import waste quantities are based on the 2007 Landfill Survey for the period of 1/1/06 to 12/31/06. Import waste quantities for 2006 (854 tpd) and 2007 (764 tpd) are based on SWIMS data, import waste quantities for 2008 and beyond are assumed to be 900 tpd.

11.- Use of existing in-County Class III landfill and transformation facilities; utilization of currently available out-of-County disposal facilities capacity; and realistic increase in diversion rate (up to 60 percent by 2020) .

LEGEND:

C - Closure due to exhausted capacity
E - Potential expansion of existing class III landfill
L - Does not accept waste from the City of Los Angeles and Orange County
R - Restricted Wasteshed
CIWMB - California Integrated Waste Management Board

Source : Los Angeles County Department of Public Works, SWIMS (May 2008), and 2006 Annual Report on the Los Angeles County Countywide Siting Element, June 2008

TABLE 4-14
SCENARIO NO. 4

DISPOSAL CAPACITY NEED ANALYSIS (EXCLUDING INERT WASTE LANDFILLS)
UTILIZATION OF EXISTING IN-COUNTY CLASS III LANDFILLS AND TRANSFORMATION FACILITIES,
UTILIZATION OF CURRENTLY AVAILABLE OUT-OF-COUNTY DISPOSAL CAPACITY , REALISTIC INCREASE IN DIVERSION RATE (UP TO 60 PERCENT BY 2020),
AND REALISTIC DEVELOPMENT OF ALTERNATIVE TECHNOLOGY FACILITY CAPACITY (UP TO 10,000 TPD BY 2021)
DURING THE PLANNING PERIOD
(Based on January 1, 2006 through December 31, 2006 six-day average tonnages and assuming AB 939 diversion is fully implemented)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
										R	R				L	R	R	R	R	R	R				
Year	Daily Waste Generation Rate	Diversion Rate	Total Daily Disposal Need	Daily Waste Import	Maximum Daily Transformation Capacity	Daily Maximum Available Alternative Technology Capacity	Class III Landfill Daily Disposal Need	Antelope Valley	Bradley	Burbank	Calabasas	Chiquita	Lancaster	Pebbly Beach	Puente Hills	San Clemente	Scholl	Sunshine County	Sunshine City	Combined Sunshine City/County	Whittier	Total Expected Daily Tonnage and Remaining Permitted Landfill Capacity	Export Need	Available Daily Out-of-County Disposal Capacity	Remaining Daily Disposal Capacity Need (Shortfall)
								Expected daily tonnage 6-day average (tpd-6)																	
								Remaining permitted landfill capacity at year's end, Million Tons																	
																						tpd-6			
																						Milion Tons			
	(tpd-6)	(percent)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)																(tpd-6)	(tpd-6)	(tpd-6)
2006	76,305	49%	37,298	854	1,724	0	36,428	977	1,447	125	1,492	4,853	1,221	8.6	12,079	2.7	1,431	2,693	4,118		268	30,715	5,713	5,713	**0**
								9.2	0.1	3.0	7.9	11.0	13.5	0.09	26.6	0.04	6.4	1.4	4.3		4.4	87.8			
2007	76,771	48%	36,918	764	2,069	0	35,613	1,400	200	126	1,501	5,000	1,700	8.7	12,500	2.7	1,440	3,685	2,065		269	29,898	5,715	5,715	**0**
								8.8	**C**	3.0	7.4	9.5	12.9	0.08	22.7	0.04	6.0	0.2	3.6		4.3	78.5			
2008	77,772	50%	38,886	900	2,069	0	37,717	1,800		127	1,521	5,000	1,700	8.8	12,500	2.7	1,459	3,000	4,500		273	31,892	5,825	5,715	**-110**
								8.2		2.9	7.0	7.9	12.4	0.08	18.8	0.04	5.5	**C**	2.2		4.2	69.2			
2009	78,947	50%	39,474	900	2,069	0	38,305	1,800		129	1,544	5,000	1,700	8.9	13,200	2.7	1,481		4,500		277	29,643	8,662	5,715	**-2,947**
								7.6		2.9	6.5	6.4	11.9	0.08	14.7	0.04	5.0		0.8		4.1	60.0			
2010	80,583	50%	40,292	900	2,069	1,200	37,923	1,800		132	1,576	5,000	1,700	9.1	13,200	2.8	1,512		4,500		283	29,714	8,208	5,715	**-2,493**
								7.1		2.8	6.0	4.8	11.4	0.08	10.6	0.04	4.6		**C**		4.0	51.3			
2011	82,190	51%	40,273	900	2,069	1,500	37,604	1,800		133	1,592	5,000	1,700	9.2	13,200	2.8	1,527				286	25,249	12,355	5,715	**-6,640**
								6.5		2.8	5.5	3.2	10.8	0.07	6.4	0.04	4.1				3.9	43.4			
2012	83,798	52%	40,223	900	2,069	2,000	37,054	1,800		134	1,607	5,000	1,700	9.3	13,200	2.9	1,541				288	25,283	11,771	5,715	**-6,056**
								5.9		2.8	5.0	1.7	**C**	0.07	2.3	0.04	3.6				3.8	25.2			
2013	85,501	53%	40,186	900	2,069	2,500	36,517	1,800		136	1,623	5,000		9.4	13,200	2.9	1,557				291	23,620	12,897	5,715	**-7,182**
								5.4		2.7	4.5	0.1		0.07	**C**	0.03	3.1				3.7	19.7			
2014	87,418	54%	40,212	900	2,069	3,000	36,043	1,800		137	1,644	5,000		9.5		2.9	1,577				295	10,465	25,578	12,873	**-12,705**
								4.8		2.7	4.0	**C**		0.06		0.03	2.6				3.6	17.8			
2015	89,207	55%	40,143	900	2,069	4,000	34,974	1,800		139	1,661			9.6		2.9	1,593				298	5,503	29,471	12,873	**-16,598**
								4.3		2.6	3.4			0.06		0.03	2.1				3.6	16.1			
2016	90,951	56%	40,018	900	2,069	5,000	33,849	1,800		140	1,677			9.7		3.0	1,608				301	5,539	28,311	11,206	**-17,105**
								3.7		2.6	2.9			0.06		0.03	1.6				3.5	14.4			
2017	92,686	57%	39,855	900	2,069	6,000	32,686	1,800		141	1,692			9.8		3.0	1,623				304	5,573	27,113	11,206	**-15,907**
								3.1		2.5	2.4			0.06		0.03	1.1				3.4	12.6			
2018	94,321	58%	39,615	900	2,069	7,000	31,446	1,800		142	1,705			9.9		3.0	1,635				306	5,601	25,844	11,206	**-14,638**
								2.6		2.5	1.9			0.05		0.03	0.6				3.3	10.9			
2019	95,958	59%	39,343	900	2,069	8,000	30,174	1,800		143	1,717			9.9		3.0	1,647				308	5,629	24,544	11,206	**-13,338**
								2.0		2.5	1.3			0.05		0.03	**C**				3.2	9.0			
2020	97,708	60%	39,083	900	2,069	9,000	28,914	1,800		145	1,732			10.0		3.1					311	4,000	24,914	11,206	**-13,708**
								1.5		2.4	0.8			0.05		0.03					3.1	7.8			
2021	99,537	60%	39,815	900	2,069	10,000	28,646	1,800		147	1,764			10.2		3.1					317	4,041	24,605	11,206	**-13,399**
								0.9		2.4	**C**			0.05		0.03					3.0	6.3			

NOTES/ASSUMPTIONS:

1.- The Waste Generation Rate (excluding the inert waste being handled at inert waste landfills) was estimated using the CIWMB's adjustment methodology, utilizing population projection, employment and taxable sales projections available from UCLA Longterm Forecast for Los Angeles County, dated June 2007.
2.- There is no remaining daily disposal capacity need (shortfall) for 2006 and 2007 because the total export need of 5,713 tpd and 5,715 tpd, respectively, were actually exported to out-of-County landfills. Since there was zero remaining daily disposal capacity need in 2006 and 2007, the diversion rate is calculated to be 49 percent and 48 percent, respectively, in order to maintain consistency of this analysis with the 2006 generation rate of 23,807,137 tons (see Table 4-5). However, the actual unofficial Waste Board's diversion rate for Los Angeles County in 2006 is 54.7 percent. This uses the default diversion rate for all jurisdictions plus the Taxable Sales deflator Index value. The rate does not include transformation credit, or disposal modifications requested by jurisdictions. Diversion rate is 50 percent for years 2008 through 2010, and will then increase by one percent annually beginning 2011 through 2020.
3.- Expected daily tonnage rates are based on the permitted daily capacity for the Antelope Valley, Chiquita, Lancaster, Puente Hills, and Sunshine Canyon landfills. The expected daily tonnage rate for Burbank, Calabasas, Pebbly Beach, San Clemente, Scholl, and Whittier (Savage) landfills are based on the average daily tonnages for the period of 1/1/06 to 12/31/06. Expected daily tonnage rate for Bradley Landfill is based on the fact that the Landfill remained open through April 14, 2007. Puente Hills Landfill's permitted daily capacity is based on the CUP requirement and the daily disposal capacity will be reduced if waste-by-rail is not implemented during the specified benchmark dates.
4.- "tpd-6" means tons per day, 6-day per week average.
5.- Class III Landfill Disposal Need refers to the amount of solid waste generated in or imported into Los Angeles County that needs to be disposed in Class III Landfills located within Los Angeles County.
6.- Class III Landfill Export Need refers to the daily amount of solid waste in need of disposal that exceeds the combined daily permitted and expected capacity of all in-County Class III landfills and transformation facilities. The amount shown for each year were taken care of by the currently available out-of-County class III landfill capacity.
7.- 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 which are currently accepting solid waste from Los Angeles County.
8.- Remaining daily disposal capacity need (shortfall) refers to the daily amount of solid waste in need of disposal that exceeds (in excess) of the available in-County and out-of-County (export) disposal capacity.
9.- Existing export quantities are considered part of the Class III landfill export need and are considered in determining the remaining daily disposal capacity need (shortfall).
10.- 2006 import waste quantities are based on the 2007 Landfill Survey for the period of 1/1/06 to 12/31/06. Import waste quantities for 2006 (854 tpd) and 2007 (764 tpd) are based on SWIMS data, import waste quantities for 2008 and beyond are assumed to be 900 tpd.
11.- Use of existing in-County Class III landfill and transformation facilities; utilization of currently available out-of-County disposal facilities capacity; realistic increase in diversion rate (up to 60 percent by 2020 and beyond); and realistic development of alternative technology facility capacity (1,200 tpd in 2010 and up to 10,000 tpd by 2021) .
12.- This scenario assumes a full implementation of the alternative technology facilities goals and objectives proposed by both the City and County of Los Angeles.

LEGEND:

C - Closure due to exhausted capacity
E - Potential expansion of existing class III landfill
L - Does not accept waste from the City of Los Angeles and Orange County
R - Restricted Wasteshed
CIWMB - California Integrated Waste Management Board

Source : Los Angeles County Department of Public Works, SWIMS (May 2008), and 2006 Annual Report on the Los Angeles County Countywide Siting Element, June 2008

TABLE 4-15
SCENARIO NO. 5

DISPOSAL CAPACITY NEED ANALYSIS (EXCLUDING INERT WASTE LANDFILLS)
UTILIZATION OF EXISTING IN-COUNTY CLASS III LANDFILLS AND TRANSFORMATION FACILITIES,
UTILIZATION OF CURRENTLY AVAILABLE OUT-OF-COUNTY DISPOSAL CAPACITY , REALISTIC INCREASE IN DIVERSION RATE (UP TO 60 PERCENT BY 2020),
REALISTIC DEVELOPMENT OF ALTERNATIVE TECHNOLOGY FACILITY CAPACITY (UP TO 10,000 TPD BY 2021),
AND DEVELOPMENT OF PROPOSED IN-COUNTY CLASS III LANDFILL EXPANSIONS
DURING THE PLANNING PERIOD
(Based on January 1, 2006 through December 31, 2006 six-day average tonnages and assuming AB 939 diversion is fully implemented)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
										R	R				L	R	R	R	R	R	R			
Year	Daily Waste Generation Rate	Diversion Rate	Total Daily Disposal Need	Daily Waste Import	Maximum Daily Transformation Capacity	Daily Maximum Available Alternative Technology Capacity	Class III Landfill Daily Disposal Need	Antelope Valley	Bradley	Burbank	Calabasas	Chiquita	Lancaster	Pebbly Beach	Puente Hills	San Clemente	Scholl	Sunshine County	Sunshine City	Combined Sunshine City/County	Whittier	Total Expected Daily Tonnage and Remaining Permitted Landfill Capacity	Export Need	Available Daily Out-of-County Disposal Capacity	Remaining Daily Disposal Capacity Need (Shortfall)
								Expected daily tonnage 6-day average (tpd-6)														tpd-6			
								Remaining permitted landfill capacity at year's end, Million Tons														Milion Tons			
	(tpd-6)	(percent)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)																(tpd-6)	(tpd-6)	(tpd-6)
2006	76,305	49%	37,298	854	1,724	0	36,428	977	1,447	125	1,492	4,853	1,221	8.6	12,079	2.7	1,431	2,693	4,118		268	30,715	5,713	5,713	**0**
								9.2	0.1	3.0	7.9	11.0	13.5	0.09	26.6	0.04	6.4	1.4	4.3		4.4	87.8			
2007	76,771	48%	36,918	764	2,069	0	35,613	1,400	200	126	1,501	5,000	1,700	8.7	12,500	2.7	1,440	3,685	2,065		269	29,898	5,715	5,715	**0**
								8.8	**C**	3.0	7.4	9.5	12.9	0.08	22.7	0.04	6.0	E 3.0	3.6		4.3	81.3			
2008	77,772	50%	38,886	900	2,069	0	37,717	1,800		125	1,492	5,000	1,700	8.8	12,500	2.7	1,431	3,500	4,500		267	32,327	5,390	5,715	325
								E 17.2		2.9	7.0	7.9	12.4	0.08	18.8	0.04	5.5	1.9	2.2		4.2	80.1			
2009	78,947	50%	39,474	900	2,069	0	38,305	1,800		127	1,514	5,000	1,700	8.9	13,200	2.7	1,453	3,500	4,500		271	33,077	5,227	5,715	488
								16.6		2.9	6.5	E 38.4	11.9	0.08	14.7	0.04	5.1	E 20.8	E 49.8		4.1	170.8			
2010	80,583	50%	40,292	900	2,069	1,200	37,923	3,600		130	1,546	5,000	3,000	9.1	13,200	2.7	1,483			11,000	277	39,247	-1,325	5,715	7,040
								15.5		2.8	6.0	36.8	E 11.0	0.08	10.6	0.04	4.6			67.2	4.0	158.6			
2011	82,190	51%	40,273	900	2,069	1,500	37,604	3,600		131	1,561	5,000	3,000	9.2	13,200	2.8	1,498			11,000	280	39,282	-1,677	5,715	7,392
								14.3		2.8	5.5	35.2	10.0	0.07	6.4	0.04	4.1			63.8	3.9	146.3			
2012	83,798	52%	40,223	900	2,069	2,000	37,054	3,600		132	1,576	5,000	3,000	9.3	13,200	2.8	1,512			11,000	282	39,315	-2,261	5,715	7,976
								13.2		2.8	5.0	33.7	9.1	0.07	2.3	0.04	3.6			60.4	3.8	134.1			
2013	85,501	53%	40,186	900	2,069	2,500	36,517	3,600		134	1,592	5,000	3,000	9.4	13,200	2.8	1,528			11,000	285	39,351	-2,835	5,715	8,550
								12.1		2.7	4.5	32.1	8.1	0.07	**C**	0.03	3.2			56.9	3.8	123.6			
2014	87,418	54%	40,212	900	2,069	3,000	36,043	3,600		135	1,612	5,000	3,000	9.5		2.9	1,547			11,000	289	26,195	9,848	12,873	3,025
								11.0		2.7	4.0	30.6	7.2	0.06		0.03	2.7			53.5	3.7	115.4			
2015	89,207	55%	40,143	900	2,069	4,000	34,974	3,600		137	1,629	5,000	3,000	9.6		2.9	1,563			11,000	292	26,233	8,741	12,873	4,132
								9.9		2.6	3.5	29.0	6.3	0.06		0.03	2.2			50.1	3.6	107.2			
2016	90,951	56%	40,018	900	2,069	5,000	33,849	3,600		138	1,645	5,000	3,000	9.7		2.9	1,578			11,000	295	26,268	7,582	11,206	3,624
								8.7		2.6	3.0	27.4	5.3	0.06		0.03	1.7			46.6	3.5	99.0			
2017	92,686	57%	39,855	900	2,069	6,000	32,686	3,600		139	1,659	5,000	3,000	9.8		3.0	1,592			11,000	297	26,301	6,385	11,206	4,821
								7.6		2.5	2.5	25.9	4.4	0.06		0.03	1.2			43.2	3.4	90.8			
2018	94,321	58%	39,615	900	2,069	7,000	31,446	3,600		140	1,672	5,000	3,000	9.9		3.0	1,604			11,000	300	26,329	5,116	11,206	6,090
								6.5		2.5	2.0	24.3	3.5	0.05		0.03	0.7			39.8	3.3	82.6			
2019	95,958	59%	39,343	900	2,069	8,000	30,174	3,600		141	1,684	5,000	3,000	9.9		3.0	1,616			11,000	302	26,357	3,817	11,206	7,389
								5.4		2.5	1.4	22.8	2.5	0.05		0.03	0.2			36.3	3.2	74.4			
2020	97,708	60%	39,083	900	2,069	9,000	28,914	3,600		143	1,698	5,000	3,000	10.0		3.0	1,629			11,000	304	26,388	2,527	11,206	8,679
								4.2		2.4	0.9	21.2	1.6	0.05		0.03	E 4.7			32.9	3.1	71.1			
2021	99,537	60%	39,815	900	2,069	10,000	28,646	3,600		145	1,730	5,000	3,000	10.2		3.1	1,660			11,000	310	26,459	2,187	11,206	9,019
								3.1		2.4	**C**	19.6	**C**	0.05		0.03	10.2			29.5	3.0	67.9			

NOTES/ASSUMPTIONS:

1.- The Waste Generation Rate (excluding the inert waste being handled at inert waste landfills) was estimated using the CIWMB's adjustment methodology, utilizing population projection, employment and taxable sales projections available from UCLA Longterm Forecast for Los Angeles County, dated June 2007.

2.- There is no remaining daily disposal capacity need (shortfall) for 2006 and 2007 because the total export need of 5,713 tpd and 5,715 tpd, respectively, were actually exported to out-of-County landfills. Since there was zero remaining daily disposal capacity need in 2006 and 2007, the diversion rate is calculated to be 49 perce and 48 percent, respectively, in order to maintain consistency of this analysis with the 2006 generation rate of 23,807,137 tons (see Table 4-5). However, the actual unofficial Waste Board's diversion rate for Los Angeles County in 2006 is 54.7 percent. This uses the default diversion rate for all jurisdictions plus the Taxable Sales deflator Index value. The rate does not include transformation credit, or disposal modifications requested by jurisdictions. Diversion rate is 50 percent for years 2008 through 2010, and will then increase by one percent annually beginning 2011 through 2020.

3.- Expected daily tonnage rates are based on the permitted daily capacity for the Antelope Valley, Chiquita, Lancaster, Puente Hills, and Sunshine Canyon landfills. The expected daily tonnage rate for Burbank, Calabasas, Pebbly Beach, San Clemente, Scholl, and Whittier (Savage) landfills are based on the average daily tonnages for the period of 1/1/06 to 12/31/06. Expected daily tonnage rate for Bradley Landfill is based on the fact that the Landfill remained open through April 14, 2007. Puente Hills Landfill's permitted daily capacity is based on the CUP requirement and the daily disposal capacity will be reduced if waste-by-rail is not implemented during the specified benchmark dates.

4.- "tpd-6" means tons per day, 6-day per week average.

5.- Class III Landfill Disposal Need refers to the amount of solid waste generated in or imported into Los Angeles County that needs to be disposed in Class III Landfills located within Los Angeles County.

6.- Class III Landfill Export Need refers to the daily amount of solid waste in need of disposal that exceeds the combined daily permitted and expected capacity of all in-County Class III landfills and transformation facilities. The amount shown for each year were taken care of by the currently available out-of-County class III landfill capacity.

7.- 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 which are currently accepting solid waste from Los Angeles County.

8.- Remaining daily disposal capacity need (shortfall) refers to the daily amount of solid waste in need of disposal that exceeds (in excess) of the available in-County and out-of-County (export) disposal capacity.

9.- Existing export quantities are considered part of the Class III landfill export need and are considered in determining the remaining daily disposal capacity need (shortfall).

10.- 2006 import waste quantities are based on the 2007 Landfill Survey for the period of 1/1/06 to 12/31/06. Import waste quantities for 2006 (854 tpd) and 2007 (764 tpd) are based on SWIMS data, import waste quantities for 2008 and beyond are assumed to be 900 tpd.

11.- Use of existing in-County Class III landfill and transformation facilities; utilization of currently available out-of-County disposal facilities capacity; realistic increase in diversion rate (up to 60 percent by 2020 and beyond); realistic development of alternative technology facility (1,200 tpd in 2010 and up to 10,000 tpd by 2021); and development of all proposed in-County Class III landfill expansions.

12.- This scenario assumes a full implementation of the alternative technology facilities goals and objectives proposed by both the City and County of Los Angeles.

13.- Scholl Canyon Landfill expansion is undergoing revision and is subject to change.

LEGEND:

C - Closure due to exhausted capacity
E - Potential expansion of existing class III landfill
L - Does not accept waste from the City of Los Angeles and Orange County
R - Restricted Wasteshed
CIWMB - California Integrated Waste Management Board

Source : Los Angeles County Department of Public Works, SWIMS (May 2008), and 2006 Annual Report on the Los Angeles County Countywide Siting Element, June 2008

TABLE 4-16

SCENARIO NO. 6 (BEST CASE SCENARIO)

DISPOSAL CAPACITY NEED ANALYSIS (EXCLUDING INERT WASTE LANDFILLS)
UTILIZATION OF EXISTING IN-COUNTY CLASS III LANDFILLS AND TRANSFORMATION FACILITIES,
UTILIZATION OF CURRENTLY AVAILABLE OUT-OF-COUNTY DISPOSAL CAPACITY, REALISTIC INCREASE IN DIVERSION RATE (UP TO 60□ BY 2020),
REALISTIC DEVELOPMENT OF ALTERNATIVE TECHNOLOGY FACILITY CAPACITY (UP TO 10,000 TPD BY 2021),
DEVELOPMENT OF PROPOSED IN-COUNTY CLASS III LANDFILL EXPANSIONS,
AND UTILIZATION OF FUTURE AVAILABLE OUT-OF-COUNTY DISPOSAL FACILITIES CAPACITY DURING THE PLANNING PERIOD
(Based on January 1, 2006 through December 31, 2006 six-day average tonnages and
assuming AB 939 diversion is fully implemented)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
								EXISTING LANDFILLS																	
Year	Daily Waste Generation Rate	Diversion Rate	Total Daily Disposal Need	Daily Waste Import	Maximum Daily Transformation Capacity	Daily Maximum Available Alternative Technology Capacity	Class III Landfill Daily Disposal Need	Antelope Valley	Bradley	Burbank R	Calabasas R	Chiquita	Lancaster	Pebbly Beach	Puente Hills L	San Clemente R	Scholl R	Sunshine County R	Sunshine City R	Combined Sunshine City/County R	Whittier R	Total Expected Daily Tonnage and Remaining Permitted Landfill Capacity	Export Need	Available Daily Out-of-County Disposal Capacity	Remaining Daily Disposal Capacity Need (Shortfall)
								Expected daily tonnage 6-day average (tpd-6)																	
								Remaining permitted landfill capacity at year's end, Million Tons														tpd-6 Milion Tons			
	(tpd-6)	(percent)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)																(tpd-6)	(tpd-6)	(tpd-6)
2006	76,305	49%	37,298	854	1,724	0	36,428	977 9.2	1,447 0.1	125 3.0	1,492 7.9	4,853 11.0	1,221 13.5	8.6 0.09	12,079 26.6	2.65 0.04	1,431 6.4	2,693 1.4	4,118 4.3		268 4.4	30,715 87.8	5,713	5,713	**0**
2007	76,771	48%	36,918	764	2,069	0	35,613	1,400 18.0	200 0.0	126 3.0	1,501 7.4	5,000 9.5	1,700 12.9	8.7 0.08	12,500 22.7	2.7 0.04	1,440 6.0	3,685 E 3.0	2,065 3.6		269 4.3	29,898 90.5	5,715	5,715	**0**
2008	77,772	50%	38,886	900	2,069	0	37,717	1,800 17.4	**C**	125 2.9	1,492 7.0	5,000 7.9	1,700 12.4	8.6 0.08	12,500 18.8	2.65 0.04	1,431 5.5	3,500 1.9	4,500 2.2		267 4.2	32,327 80.4	5,390	5,715	325
2009	78,947	50%	39,474	900	2,069	0	38,305	1,800 16.8		127 2.9	1,514 6.5	5,000 6.4	1,700 11.9	8.8 0.08	13,200 14.7	2.69 0.04	1,453 5.1	3,500 E 20.8	4,500 E 49.8		271 4.1	33,077 139.1	5,227	5,715	488
2010	80,583	50%	40,292	900	2,069	1,200	37,923	3,600 E 15.7		130 2.8	1,546 6.0	5,000 E 36.8	3,000 E 11.0	9.0 0.08	13,200 10.6	2.75 0.04	1,483 4.6			11,000 67.2	277 4.0	39,247 158.8	-1,325	9,715	11,040
2011	82,190	51%	40,273	900	2,069	1,500	37,604	3,600 14.6		131 2.8	1,561 5.5	5,000 35.2	3,000 10.0	9.0 0.07	13,200 6.4	2.78 0.04	1,498 4.1			11,000 63.8	280 3.9	39,282 146.6	-1,677	9,715	11,392
2012	83,798	52%	40,223	900	2,069	2,000	37,054	3,600 13.5		132 2.8	1,576 5.0	5,000 33.7	3,000 9.1	9.1 0.07	13,200 2.3	2.80 0.04	1,512 3.6			11,000 60.4	282 3.8	39,315 134.3	-2,261	9,715	11,976
2013	85,501	53%	40,186	900	2,069	2,500	36,517	3,600 12.3		134 2.7	1,592 4.5	5,000 32.1	3,000 8.1	9.2 0.07	13,200 **C**	2.83 0.03	1,528 3.2			11,000 56.9	285 3.8	39,351 123.8	-2,835	9,715	12,550
2014	87,418	54%	40,212	900	2,069	3,000	36,043	3,600 11.2		135 2.7	1,612 4.0	5,000 30.6	3,000 7.2	9.3 0.06		2.87 0.03	1,547 2.7			11,000 53.5	289 3.7	26,195 115.6	9,848	16,873	7,025
2015	89,207	55%	40,143	900	2,069	4,000	34,974	3,600 10.1		137 2.6	1,629 3.5	5,000 29.0	3,000 6.3	9.4 0.06		2.90 0.03	1,563 2.2			11,000 50.1	292 3.6	26,233 107.5	8,741	16,873	8,132
2016	90,951	56%	40,018	900	2,069	5,000	33,849	3,600 9.0		138 2.6	1,645 3.0	5,000 27.4	3,000 5.3	9.5 0.06		2.93 0.03	1,578 1.7			11,000 46.6	295 3.5	26,268 99.3	7,582	15,206	7,624
2017	92,686	57%	39,855	900	2,069	6,000	32,686	3,600 7.8		139 2.5	1,659 2.5	5,000 25.9	3,000 4.4	9.6 0.06		2.95 0.03	1,592 1.2			11,000 43.2	297 3.4	26,301 91.1	6,385	15,206	8,821
2018	94,321	58%	39,615	900	2,069	7,000	31,446	3,600 6.7		140 2.5	1,672 2.0	5,000 24.3	3,000 3.5	9.7 0.05		2.97 0.03	1,604 0.7			11,000 39.8	300 3.3	26,329 82.8	5,117	15,206	10,089
2019	95,958	59%	39,343	900	2,069	8,000	30,174	3,600 5.6		141 2.5	1,684 1.4	5,000 22.8	3,000 2.5	9.8 0.05		3.00 0.03	1,616 0.2			11,000 36.3	302 3.2	26,357 74.6	3,817	15,206	11,389
2020	97,708	60%	39,083	900	2,069	9,000	28,914	3,600 4.5		143 2.4	1,698 0.9	5,000 21.2	3,000 1.6	9.8 0.05		3.02 0.03	1,629 E 4.7			11,000 32.9	304 3.1	26,387 71.4	2,527	15,206	12,679
2021	99,537	60%	39,815	900	2,069	10,000	28,646	3,600 3.4		145 2.4	1,730 0.4	5,000 19.6	3,000 0.7	10.0 0.04		3.08 0.03	1,660 10.2			11,000 29.5	310 3.0	26,458 69.1	2,187	15,206	13,019

NOTES/ASSUMPTIONS:

1.- The Waste Generation Rate (excluding the inert waste being handled at inert waste landfills) was estimated using the CIWMB's adjustment methodology, utilizing population projection, employment and taxable sales projections available from UCLA Longterm Forecast for Los Angeles County, dated June 2007.

2.- There is no remaining daily disposal capacity need (shortfall) for 2006 and 2007 because the total export need of 5,713 tpd and 5,715 tpd, respectively, were actually exported to out-of-County landfills. Since there was zero remaining daily disposal capacity need in 2006 and 2007, the diversion rate is calculated to be 49 percent and 48 percent, respectively, in order to maintain consistency of this analysis with the 2006 generation rate of 23,807,137 tons (see Table 4-5). However, the actual unofficial Waste Board's diversion rate for Los Angeles County in 2006 is 54.7 percent. This uses the default diversion rate for all jurisdictions plus the Taxable Sales deflator Index value. The rate does not include transformation credit, or disposal modifications requested by jurisdictions. Diversion rate is 50 percent for years 2008 through 2010, and will then increase by one percent annually beginning 2011 through 2020.

3.- Expected daily tonnage rates are based on the permitted daily capacity for the Antelope Valley, Chiquita, Lancaster, Puente Hills, and Sunshine Canyon landfills. The expected daily tonnage rate for Burbank, Calabasas, Pebbly Beach, San Clemente, Scholl, and Whittier (Savage) landfills are based on the average daily tonnages for the period of 1/1/06 to 12/31/06. Expected daily tonnage rate for Bradley Landfill is based on the fact that the Landfill remained open through April 14, 2007. Puente Hills Landfill's permitted daily capacity is based on the CUP requirement and the daily disposal capacity will be reduced if waste-by-rail is not implemented during the specified benchmark dates.

4.- "tpd-6" means tons per day, 6-day per week average.

5.- Class III Landfill Disposal Need refers to the amount of solid waste generated in or imported into Los Angeles County that needs to be disposed in Class III Landfills located within Los Angeles County.

6.- Class III Landfill Export Need refers to the daily amount of solid waste in need of disposal that exceeds the combined daily permitted and expected capacity of all in-County Class III landfills and transformation facilities. The amount shown for each year were taken care of by the currently available out-of-County class III landfill capacity.

7.- 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 which are currently accepting solid waste from Los Angeles County.

8.- Remaining daily disposal capacity need (shortfall) refers to the daily amount of solid waste in need of disposal that exceeds (in excess) of the available in-County and out-of-County (export) disposal capacity.

9.- Existing export quantities are considered part of the Class III landfill export need and are considered in determining the remaining daily disposal capacity need (shortfall).

10.- 2006 import waste quantities are based on the 2007 Landfill Survey for the period of 1/1/06 to 12/31/06. Import waste quantities for 2006 (854 tpd) and 2007 (764 tpd) are based on SWIMS data, import waste quantities for 2008 and beyond are assumed to be 900 tpd.

11.- Use of existing in-County Class III landfill and transformation facilities; utilization of currently available out-of-County disposal facilities capacity; realistic increase in diversion rate (up to 60 percent by 2020 and beyond); realistic development of alternative technology facility capacity (1,200 tpd in 2010 and up to 10,000 tpd by 2021); development of all in-County Class III landfill expansions; and utilization of future available out-of-County disposal facility capacity .

12.- This assumes a full implementation of the alternative technology facilities goals and objectives proposed by both the City and County of Los Angeles.

13.- Scholl Canyon Landfill expansion is undergoing revision and is subject to change.

LEGEND:

C - Closure due to exhausted capacity
E - Potential expansion of existing class III landfill
L - Does not accept waste from the City of Los Angeles and Orange County
R - Restricted Wasteshed
CIWMB - California Integrated Waste Management Board

Source : Los Angeles County Department of Public Works, SWIMS (May 2008), and 2006 Annual Report on the Los Angeles County Countywide Siting Element, June 2008

TABLE 4-17

SCENARIO NO. 7 (OPTIMISTIC CASE SCENARIO - OPTIMISTIC DIVERSION RATE UP TO 75 PERCENT BY 2020)

DISPOSAL CAPACITY NEED ANALYSIS (EXCLUDING INERT WASTE LANDFILLS)
UTILIZATION OF EXISTING IN-COUNTY CLASS III LANDFILLS AND TRANSFORMATION FACILITIES,
UTILIZATION OF CURRENTLY AVAILABLE OUT-OF-COUNTY DISPOSAL CAPACITY, OPTIMISTIC INCREASE IN DIVERSION RATE (UP TO 75 PERCENT BY 2020),
REALISTIC DEVELOPMENT OF ALTERNATIVE TECHNOLOGY FACILITY CAPACITY (UP TO 10,000 TPD BY 2021),
DEVELOPMENT OF PROPOSED IN-COUNTY CLASS III LANDFILL EXPANSIONS,
AND UTILIZATION OF FUTURE AVAILABLE OUT-OF-COUNTY DISPOSAL FACILITIES CAPACITY DURING THE PLANNING PERIOD
(Based on January 1, 2006 through December 31, 2006 six-day average tonnages and assuming AB 939 diversion is fully implemented)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
								EXISTING LANDFILLS																	
										R	R				L	R	R	R	R	R	R				
Year	Daily Waste Generation Rate	Diversion Rate	Total Daily Disposal Need	Daily Waste Import	Maximum Daily Transformation Capacity	Daily Maximum Available Alternative Technology Capacity	Class III Landfill Daily Disposal Need	Antelope Valley	Bradley	Burbank	Calabasas	Chiquita	Lancaster	Pebbly Beach	Puente Hills	San Clemente	Scholl	Sunshine County	Sunshine City	Combined Sunshine City/County	Whittier	Total Expected Daily Tonnage and Remaining Permitted Landfill Capacity	Export Need	Available Daily Out-of-County Disposal Capacity	Remaining Daily Disposal Capacity Need (Shortfall)
								Expected daily tonnage 6-day average (tpd-6)																	
								Remaining permitted landfill capacity at year's end, Million Tons														tpd-6 / Milion Tons			
	(tpd-6)	(percent)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)																(tpd-6)	(tpd-6)	(tpd-6)
2006	76,305	49%	37,298	854	1,724	0	36,428	977 9.2	1,447 0.1	125 3.0	1,492 7.9	4,853 11.0	1,221 13.5	8.6 0.09	12,079 26.6	2.65 0.04	1,431 6.4	2,693 1.4	4,118 4.3		268 4.4	30,715 87.8	5,713	5,713	**0**
2007	76,771	48%	36,918	764	2,069	0	35,613	1,400 18.0	200 0.0	126 3.0	1,501 7.4	5,000 9.5	1,700 12.9	8.7 0.08	12,500 22.7	2.7 0.04	1,440 6.0	3,685 **E** 3.0	2,065 3.6		269 4.3	29,898 90.5	5,715	5,715	**0**
2008	77,772	52%	37,330	900	2,069	0	36,161	1,800 17.4	**C**	123 2.9	1,462 7.0	5,000 7.9	1,700 12.4	8.5 0.08	12,500 18.8	2.60 0.04	1,402 5.5	3,500 1.9	4,500 2.2		262 4.2	32,260 80.4	3,901	5,715	1,814
2009	78,947	54%	36,316	900	2,069	0	35,147	1,800 16.8		122 2.9	1,455 6.5	5,000 6.4	1,700 11.9	8.4 0.08	13,200 14.7	2.59 0.04	1,396 5.1	3,500 **E** 20.8	4,500 **E** 49.8		261 4.1	32,944 139.1	2,203	5,715	3,512
2010	80,583	56%	35,457	900	2,069	1,200	33,088	3,600 **E** 15.7		122 2.8	1,456 6.1	5,000 **E** 36.8	3,000 **E** 11.0	8.4 0.08	13,200 10.6	2.59 0.04	1,397 4.6			11,000 67.2	261 4.0	39,046 158.9	-5,959	9,715	15,674
2011	82,190	58%	34,520	900	2,069	1,500	31,851	3,600 14.6		122 2.8	1,456 5.6	5,000 35.2	3,000 10.0	8.4 0.07	13,200 6.4	2.59 0.04	1,397 4.2			11,000 63.8	261 3.9	39,046 146.8	-7,195	9,715	16,910
2012	83,798	60%	33,519	900	2,069	2,000	30,350	3,600 13.5		122 2.8	1,455 5.2	5,000 33.7	3,000 9.1	8.4 0.07	13,200 2.3	2.59 0.04	1,396 3.8			11,000 60.4	261 3.9	39,045 134.6	-8,695	9,715	18,410
2013	85,501	63%	31,635	900	2,069	2,500	27,966	3,600 12.3		121 2.7	1,441 4.7	5,000 32.1	3,000 8.1	8.4 0.07	13,200 **C**	2.56 0.03	1,382 3.3			11,000 56.9	258 3.8	39,013 124.2	-11,047	9,715	20,762
2014	87,418	66%	29,722	900	2,069	3,000	25,553	3,600 11.2		120 2.7	1,430 4.3	5,000 30.6	3,000 7.2	8.3 0.07		2.54 0.03	1,372 2.9			11,000 53.5	256 3.7	25,789 116.2	-236	16,873	17,109
2015	89,207	67%	29,438	900	2,069	4,000	24,269	3,600 10.1		121 2.7	1,445 3.8	5,000 29.0	3,000 6.3	8.4 0.06		2.57 0.03	1,386 2.5			11,000 50.1	259 3.6	25,822 108.1	-1,553	16,873	18,426
2016	90,951	68%	29,104	900	2,069	5,000	22,935	3,600 9.0		122 2.6	1,459 3.4	5,000 27.4	3,000 5.3	8.5 0.06		2.59 0.03	1,400 2.0			11,000 46.6	261 3.5	25,853 100.0	-2,918	15,206	18,124
2017	92,686	69%	28,733	900	2,069	6,000	21,563	3,600 7.8		124 2.6	1,472 2.9	5,000 25.9	3,000 4.4	8.5 0.06		2.62 0.03	1,412 1.6			11,000 43.2	264 3.5	25,883 92.0	-4,319	15,206	19,525
2018	94,321	71%	27,353	900	2,069	7,000	19,184	3,600 6.7		123 2.5	1,469 2.4	5,000 24.3	3,000 3.5	8.5 0.06		2.61 0.03	1,409 1.2			11,000 39.8	263 3.4	25,875 83.9	-6,691	15,206	21,897
2019	95,958	73%	25,909	900	2,069	8,000	16,740	3,600 5.6		123 2.5	1,465 2.0	5,000 22.8	3,000 2.5	8.5 0.05		2.61 0.03	1,405 0.7			11,000 36.3	262 3.3	25,866 75.8	-9,127	15,206	24,333
2020	97,708	75%	24,427	900	2,069	9,000	14,258	3,600 4.5		123 2.5	1,462 1.5	5,000 21.2	3,000 1.6	8.5 0.05		2.60 0.03	1,403 **E** 5.3			11,000 32.9	262 3.2	25,861 72.7	-11,603	15,206	26,809
2021	99,537	75%	24,884	900	2,069	10,000	13,715	3,600 3.4		125 2.4	1,489 1.1	5,000 19.6	3,000 0.7	8.6 0.05		2.65 0.03	1,429 10.8			11,000 29.5	267 3.1	25,922 70.7	-12,206	15,206	27,412

NOTES/ASSUMPTIONS:

1.- The Waste Generation Rate (excluding the inert waste being handled at inert waste landfills) was estimated using the CIWMB's adjustment methodology, utilizing population projection, employment and taxable sales projections available from UCLA Longterm Forecast for Los Angeles County, dated June 2007.

2.- There is no remaining daily disposal capacity need (shortfall) for 2006 and 2007 because the total export need of 5,713 tpd and 5,715 tpd, respectively, were actually exported to out-of-County landfills. Since there was zero remaining daily disposal capacity need in 2006 and 2007, the diversion rate is calculated to be 49 percent and 48 percent, respectively, in order to maintain consistency of this analysis with the 2006 generation rate of 23,807,137 tons (see Table 4-5). However, the semi-official Waste Board's diversion rate for Los Angeles County in 2006 is 54.7 percent. This uses the default diversion rate for all jurisdictions plus the Taxable Sales deflator Index value. The rate does not include transformation credit, or disposal modifications requested by jurisdictions.

3.- Expected daily tonnage rates are based on the permitted daily capacity for the Antelope Valley, Chiquita, Lancaster, Puente Hills, and Sunshine Canyon landfills. The expected daily tonnage rate for Burbank, Calabasas, Pebbly Beach, San Clemente, Scholl, and Whittier (Savage) landfills are based on the average daily tonnages for the period of 1/1/06 to 12/31/06. Expected daily tonnage rate for Bradley Landfill is based on the fact that the Landfill remained open through April 14, 2007. Puente Hills Landfill's permitted daily capacity is based on the CUP requirement and the daily disposal capacity will be reduced if waste-by-rail is not implemented during the specified benchmark dates.

4.- "tpd-6" means tons per day, 6-day per week average.

5.- Class III Landfill Disposal Need refers to the amount of solid waste generated in or imported into Los Angeles County that needs to be disposed in Class III Landfills located within Los Angeles County.

6.- Class III Landfill Export Need refers to the daily amount of solid waste in need of disposal that exceeds the combined daily permitted and expected capacity of all in-County Class III landfills and transformation facilities. The amount shown for each year were taken care of by the currently available out-of-County class III landfill capacity.

7.- 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 which are currently accepting solid waste from Los Angeles County.

8.- Remaining daily disposal capacity need (shortfall) refers to the daily amount of solid waste in need of disposal that exceeds (in excess) of the available in-County and out-of-County (export) disposal capacity.

9.- Existing export quantities are considered part of the Class III landfill export need and are considered in determining the remaining daily disposal capacity need (shortfall).

10.- 2006 import waste quantities are based on the 2007 Landfill Survey for the period of 1/1/06 to 12/31/06. Import waste quantities for 2006 (854 tpd) and 2007 (764 tpd) are based on SWIMS data, import waste quantities for 2008 and beyond are assumed to be 900 tpd.

11.- Use of existing in-County Class III landfill and transformation facilities; utilization of currently available out-of-County disposal facilities capacity; optimistic increase in diversion rate (up to 75 percent by 2020) ; realistic development of alternative technology facility capacity (1,200 tpd in 2010 and up to 10,000 tpd by 2021); development of all proposed in-County Class III landfill expansions; and utilization of future available out-of-County disposal facility capacity.

12.- This assumes a full implementation of the alternative technology facilities goals and objectives proposed by both the City and County of Los Angeles.

13.- This assumes: (1) increase in City of Los Angeles' diversion rate to 75 percent by 2013 per Mayor's directive, and (2) potential increase in statewide diversion rate to 60 percent in 2012 and 75 percent by 2020 as intended in Senate Bill (SB) 1020, and 60 percent in 2015 and 75 percent by 2020 as intended in Assembly Bill 1390 and SB 1252.

LEGEND:

C - Closure due to exhausted capacity
E - Potential expansion of existing class III landfill
L - Does not accept waste from the City of Los Angeles and Orange County
R - Restricted Wasteshed
CIWMB - California Integrated Waste Management Board

Source : Los Angeles County Department of Public Works, SWIMS (May 2008), and 2006 Annual Report on the Los Angeles County Countywide Siting Element, June 2008

TABLE 4-18

SCENARIO NO. 8 (OPTIMISTIC CASE SCENARIO - OPTIMISTIC ALTERNATIVE TECHNOLOGY CAPACITY UP TO 15,000 TPD BY 2021)

DISPOSAL CAPACITY NEED ANALYSIS (EXCLUDING INERT WASTE LANDFILLS)
UTILIZATION OF EXISTING IN-COUNTY CLASS III LANDFILLS AND TRANSFORMATION FACILITIES,
UTILIZATION OF CURRENTLY AVAILABLE OUT-OF-COUNTY DISPOSAL CAPACITY, REALISTIC INCREASE OF THE DIVERSION RATE (UP TO 60 PERCENT BY 2020),
OPTIMISTIC DEVELOPMENT OF ALTERNATIVE TECHNOLOGY FACILITY CAPACITY (UP TO 15,000 TPD BY 2021),
DEVELOPMENT OF PROPOSED IN-COUNTY CLASS III LANDFILL EXPANSIONS,
AND UTILIZATION OF FUTURE AVAILABLE OUT-OF-COUNTY DISPOSAL FACILITIES CAPACITY DURING THE PLANNING PERIOD
(Based on January 1, 2006 through December 31, 2006 six-day average tonnages and
assuming AB 939 diversion is fully implemented)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
								EXISTING LANDFILLS																	
										R	R				L	R	R	R	R	R	R				
Year	Daily Waste Generation Rate	Diversion Rate	Total Daily Disposal Need	Daily Waste Import	Maximum Daily Transformation Capacity	Maximum Available Alternative Technology Capacity	Class III Landfill Daily Disposal Need	Antelope Valley	Bradley	Burbank	Calabasas	Chiquita	Lancaster	Pebbly Beach	Puente Hills	San Clemente	Scholl	Sunshine County	Sunshine City	Combined Sunshine City/County	Whittier	Total Expected Daily Tonnage and Remaining Permitted Landfill Capacity	Export Need	Available Daily Out-of-County Disposal Capacity	Remaining Daily Disposal Capacity Need (Shortfall)
								Expected daily tonnage 6-day average (tpd-6)														tpd-6			
								Remaining permitted landfill capacity at year's end, Million Tons														Milion Tons			
	(tpd-6)	(percent)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)																(tpd-6)	(tpd-6)	(tpd-6)
2006	76,305	49%	37,298	854	1,724	0	36,428	977	1,447	125	1,492	4,853	1,221	8.6	12,079	2.65	1,431	2,693	4,118		268	30,715	5,713	5,713	**0**
								9.2	0.1	3.0	7.9	11.0	13.5	0.09	26.6	0.04	6.4	1.4	4.3		4.4	87.8			
2007	76,771	48%	36,918	764	2,069	0	35,613	1,400	200	126	1,501	5,000	1,700	8.7	12,500	2.7	1,440	3,685	2,065		269	29,898	5,715	5,715	**0**
								18.0	0.0	3.0	7.4	9.5	12.9	0.08	22.7	0.04	6.0	**E** 3.0	3.6		4.3	90.5			
2008	77,772	50%	38,886	900	2,069	0	37,717	1,800	**C**	125	1,492	5,000	1,700	8.6	12,500	2.65	1,431	3,500	4,500		267	32,327	5,390	5,715	325
								17.4		2.9	7.0	7.9	12.4	0.08	18.8	0.04	5.5	1.9	2.2		4.2	80.4			
2009	78,947	50%	39,474	900	2,069	0	38,305	1,800		127	1,514	5,000	1,700	8.8	13,200	2.69	1,453	3,500	4,500		271	33,077	5,227	5,715	488
								16.8		2.9	6.5	6.4	11.9	0.08	14.7	0.04	5.1	**E** 20.8	**E** 49.8		4.1	139.1			
2010	80,583	50%	40,292	900	2,069	1,200	37,923	3,600		130	1,546	5,000	3,000	9.0	13,200	2.75	1,483			11,000	277	39,247	-1,325	9,715	11,040
								E 15.7		2.8	6.0	**E** 36.8	**E** 11.0	0.08	10.6	0.04	4.6			67.2	4.0	158.8			
2011	82,190	51%	40,273	900	2,069	1,500	37,604	3,600		131	1,561	5,000	3,000	9.0	13,200	2.78	1,498			11,000	280	39,282	-1,677	9,715	11,392
								14.6		2.8	5.5	35.2	10.0	0.07	6.4	0.04	4.1			63.8	3.9	146.6			
2012	83,798	52%	40,223	900	2,069	2,000	37,054	3,600		132	1,576	5,000	3,000	9.1	13,200	2.80	1,512			11,000	282	39,315	-2,261	9,715	11,976
								13.5		2.8	5.0	33.7	9.1	0.07	2.3	0.04	3.6			60.4	3.8	134.3			
2013	85,501	53%	40,186	900	2,069	2,500	36,517	3,600		134	1,592	5,000	3,000	9.2	13,200	2.83	1,528			11,000	285	39,351	-2,835	9,715	12,550
								12.3		2.7	4.5	32.1	8.1	0.07	**C**	0.03	3.2			56.9	3.8	123.8			
2014	87,418	54%	40,212	900	2,069	4,500	34,543	3,600		135	1,612	5,000	3,000	9.3		2.87	1,547			11,000	289	26,195	8,348	16,873	8,525
								11.2		2.7	4.0	30.6	7.2	0.06		0.03	2.7			53.5	3.7	115.6			
2015	89,207	55%	40,143	900	2,069	6,500	32,474	3,600		137	1,629	5,000	3,000	9.4		2.90	1,563			11,000	292	26,233	6,241	16,873	10,632
								10.1		2.6	3.5	29.0	6.3	0.06		0.03	2.2			50.1	3.6	107.5			
2016	90,951	56%	40,018	900	2,069	8,500	30,349	3,600		138	1,645	5,000	3,000	9.5		2.93	1,578			11,000	295	26,268	4,082	15,206	11,124
								9.0		2.6	3.0	27.4	5.3	0.06		0.03	1.7			46.6	3.5	99.3			
2017	92,686	57%	39,855	900	2,069	12,500	26,186	3,600		139	1,659	5,000	3,000	9.6		2.95	1,592			11,000	297	26,301	-115	15,206	15,321
								7.8		2.5	2.5	25.9	4.4	0.06		0.03	1.2			43.2	3.4	91.1			
2018	94,321	58%	39,615	900	2,069	13,000	25,446	3,600		140	1,672	5,000	3,000	9.7		2.97	1,604			11,000	300	26,329	-883	15,206	16,089
								6.7		2.5	2.0	24.3	3.5	0.05		0.03	0.7			39.8	3.3	82.8			
2019	95,958	59%	39,343	900	2,069	13,500	24,674	3,600		141	1,684	5,000	3,000	9.8		3.00	1,616			11,000	302	26,357	-1,683	15,206	16,889
								5.6		2.5	1.4	22.8	2.5	0.05		0.03	0.2			36.3	3.2	74.6			
2020	97,708	60%	39,083	900	2,069	14,500	23,414	3,600		143	1,698	5,000	3,000	9.8		3.02	1,629			11,000	304	26,387	-2,973	15,206	18,179
								4.5		2.4	0.9	21.2	1.6	0.05		0.03	**E** 4.7			32.9	3.1	71.4			
2021	99,537	60%	39,815	900	2,069	15,000	23,646	3,600		145	1,730	5,000	3,000	10.0		3.08	1,660			11,000	310	26,458	-2,813	15,206	18,019
								3.4		2.4	0.4	19.6	0.7	0.04		0.03	10.2			29.5	3.0	69.1			

NOTES/ASSUMPTIONS:

1.- The Waste Generation Rate (excluding the inert waste being handled at inert waste landfills) was estimated using the CIWMB's adjustment methodology, utilizing population projection, employment and taxable sales projections available from UCLA Longterm Forecast for Los Angeles County, dated June 2007.

2.- There is no remaining daily disposal capacity need (shortfall) for 2006 and 2007 because the total export need of 5,713 tpd and 5,715 tpd, respectively, were actually exported to out-of-County landfills. Since there was zero remaining daily disposal capacity need in 2006 and 2007, the diversion rate is calculated to be 49 percent and 48 percent, respectively, in order to maintain consistency of this analysis with the 2006 generation rate of 23,807,137 tons (see Table 4-5). However, the actual unofficial Waste Board's diversion rate for Los Angeles County in 2006 is 54.7 percent. This uses the default diversion rate for all jurisdictions plus the Taxable Sales deflator Index value. The rate does not include transformation credit, or disposal modifications requested by jurisdictions.

3.- Expected daily tonnage rates are based on the permitted daily capacity for the Antelope Valley, Chiquita, Lancaster, Puente Hills, and Sunshine Canyon landfills. The expected daily tonnage rate for Burbank, Calabasas, Pebbly Beach, San Clemente, Scholl, and Whittier (Savage) landfills are based on the average daily tonnages t the period of 1/1/06 to 12/31/06. Expected daily tonnage rate for Bradley Landfill is based on the fact that the Landfill remained open through April 14, 2007. Puente Hills Landfill's permitted daily capacity is based on the CUP requirement and the daily disposal capacity will be reduced if waste-by-rail is not implemented during the specified benchmark dates.

4.- "tpd-6" means tons per day, 6-day per week average.

5.- Class III Landfill Disposal Need refers to the amount of solid waste generated in or imported into Los Angeles County that needs to be disposed in Class III Landfills located within Los Angeles County.

6.- Class III Landfill Export Need refers to the daily amount of solid waste in need of disposal that exceeds the combined daily permitted and expected capacity of all in-County Class III landfills and transformation facilities. The amount shown for each year were taken care of by the currently available out-of-County class III landfill capacity.

7.- 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 which are currently accepting solid waste from Los Angeles County.

8.- Remaining daily disposal capacity need (shortfall) refers to the daily amount of solid waste in need of disposal that exceeds (in excess) of the available in-County and out-of-County (export) disposal capacity.

9.- Existing export quantities are considered part of the Class III landfill export need and are considered in determining the remaining daily disposal capacity need (shortfall).

10.- 2006 import waste quantities are based on the 2007 Landfill Survey for the period of 1/1/06 to 12/31/06. Import waste quantities for 2006 (854 tpd) and 2007 (764 tpd) are based on SWIMS data, import waste quantities for 2008 and beyond are assumed to be 900 tpd.

11.- Use of existing in-County Class III landfill and transformation facilities; utilization of currently available out-of-County disposal facilities capacity; realistic increase in diversion rate (up to 60 percent by 2020)optimistic development of alternative technology facility capacity (1,200 tpd in 2010 and up to 15,000 tpd by 2021), development of all proposed in-County Class III landfill expansions; and utilization of future available out-of-County disposal facility capacity. .

12.- This assumes a full implementation of the alternative technology facilities goals and objectives proposed by both the City and County of Los Angeles.

LEGEND:

C - Closure due to exhausted capacity
E - Potential expansion of existing class III landfill
L - Does not accept waste from the City of Los Angeles and Orange County
R - Restricted Wasteshed
CIWMB - California Integrated Waste Management Board

Source : Los Angeles County Department of Public Works, SWIMS (May 2008), and 2006 Annual Report on the Los Angeles County Countywide Siting Element, June 2008

TABLE 4-19
SUMMARY OF THE EXPORT NEED
FOR THE VARIOUS DISPOSAL CAPACITY NEED ANALYSIS SCENARIOS

Year	Waste Generation Rate	Imported Waste	Maximum Daily Transformation Capacity	Scenario No. 1 - Worst Case Scenario (Table 4-11)	Scenario No. 2 (Table 4-12)	Scenario No. 3 (Table 4-13)	Scenario No. 4 (Table 4-14)	Scenario No. 5 (Table 4-15)	Scenario No. 6 Best Case Scenario (Table 4-16)	Scenario No. 7 Optimistic Case Scenario - Optimistic Increase in Diversion Rate (Table 4-17)	Scenario No. 8 Optimistic Case Scenario - Optimistic Development of Alternative Technology Facilities Capacity (Table 4-18)
				Existing in-County Class III landfills and transformation facilities only	Scenario 1 plus currently available out-of-County disposal capacity	Scenario 2 plus realistic increase in diversion rate (50 percent by 2010 and up to 60 percent by 2020)	Scenario 3 plus realistic development of alternative technology facility capacity (1,200 tpd by 2010 and up to 10,000 tpd[1] by 2021)	Scenario 4 plus development of all proposed in-County Class III landfill expansions	Scenario 5 plus utilization of future available out-of-County disposal capacity	Scenario 6 plus optimistic increase in diversion rate (60 percent by 2013 and up to 75 percent by 2020)	Scenario 6 plus optimistic development of alternative technology facility capacity (13,000 tpd by 2014 and up to 15,000 tpd by 2021)
				Class III Landfill Daily Disposal Capacity Export Need							
	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)
2006	76,305	854	1,715	5,713	5,713	5,713	5,713	5,713	5,713	5,713	5,713
2007	76,771	764	2,069	5,715	5,715	5,715	5,715	5,715	5,715	5,715	5,715
2008	77,772	900	2,069	5,825	5,825	5,825	5,825	5,390	5,390	3,901	5,390
2009	78,947	900	2,069	8,662	8,662	8,662	8,662	5,227	5,227	2,203	5,227
2010	80,583	900	2,069	9,408	9,408	9,408	8,208	-1,325	-1,325	-5,959	-1,325
2011	82,190	900	2,069	14,642	14,642	13,855	12,355	-1,677	-1,677	-7,195	-1,677
2012	83,798	900	2,069	15,376	15,376	13,771	11,771	-2,261	-2,261	-8,695	-2,261
2013	85,501	900	2,069	17,853	17,853	15,397	12,897	-2,835	-2,835	-11,047	-2,835
2014	87,418	900	2,069	31,928	31,928	28,578	25,578	9,848	9,848	-236	8,348
2015	89,207	900	2,069	37,744	37,744	33,471	29,471	8,741	8,741	-1,553	6,241
2016	90,951	900	2,069	38,540	38,540	33,311	28,311	7,582	7,582	-2,918	4,082
2017	92,686	900	2,069	39,332	39,332	33,113	27,113	6,385	6,385	-4,319	-115
2018	94,321	900	2,069	40,078	40,078	32,844	25,844	5,116	5,117	-6,691	-883
2019	95,958	900	2,069	40,825	40,825	32,544	24,544	3,817	3,817	-9,127	-1,683
2020	97,708	900	2,069	43,457	43,457	33,914	24,914	2,527	2,527	-11,603	-2,973
2021	99,537	900	2,069	44,326	44,326	34,605	24,605	2,187	2,187	-12,206	-2,813

Assumptions:

1. Import rate of 900 tpd from 2008 to 2021. Actual import rates are used for 2006 and 2007.
2. For Scenario 1, export quantities are considered part of the Class III landfill Disposal Need and the daily disposal capacity need (shortfall).

General Notes:

Scenario 1: Use of existing in-County Class III landfill and transformation facilities only (Worst Case).
Scenario 2: Use of existing in-County Class III landfill and transformation facilities, and utilization of currently available out-of-County disposal facility capacity (Status Quo).
Scenario 3: Use of existing in-County Class III landfill and transformation facilities; utilization of currently available out-of-County disposal facility capacity; and realistic increase in diversion rate (up to 60 percent by 2020).
Scenario 4: Use of existing in-County Class III landfill and transformation facilities; utilization of currently available out-of-County disposal facility capacity; realistic increase in diversion rate (up to 60 percent by 2020); and realistic development of alternative technology facility capacity (1,200 tpd by 2010 and up to 10,000 tpd by 2021). This assumes a full implementation technology facilities goals and objectives proposed by both the City and County of Los Angeles.
Scenario 5: Use of existing in-County Class III landfill and transformation facilities; utilization of currently available out-of-County disposal facility capacity; realistic increase in diversion rate (up to 60 percent by 2020); realistic development of alternative technology facility capacity (1,200 tpd by 2010 to 10,000 tpd by 2021); and development of all proposed in-County a full implementation of the alternative technology facilities goals and objectives proposed by both the City and County of Los Angeles.
Scenario 6: Use of existing in-County Class III landfill and transformation facilities; utilization of currently available out-of-County disposal facility capacity; realistic increase in diversion rate (up to 60 percent in 2020); realistic development of alternative technology facility capacity (1,200 tpd by 2010 and up to 10,000 tpd by 2021); development of all proposed in-County and utilization of future available out-of-County disposal facility capacity. This assumes a full implementation of the alternative technology facility goals and objectives proposed by both the City and County of Los Angeles.
Scenario 7: Use of existing in-County Class III landfill and transformation facilities; utilization of currently available out-of-County disposal facility capacity; optimistic increase in diversion rate (up to 75 percent by 2020); realistic development of alternative technology facility capacity (1,200 tpd by 2010 and up to 10,000 tpd by 2021); development of all proposed in-County Class III landfill expansions; and utilization of future available out-of-County disposal facility capacity. This assumes a full implementation of the alternative technology facility goals and objectives proposed by both the City and County of Los Angeles.
Scenario 8: Use of existing in-County Class III landfill and transformation facilities; utilization of currently available out-of-County disposal facility capacity; realistic increase in diversion rate (up to 60 percent by 2020); optimistic development of alternative technology facility capacity (13,000 tpd by 2014 and up to 15,000 tpd by 2021); development of all proposed in-County Class III landfill expansions; and utilization of future available out-of-County disposal facility capacity. This assumes a full implementation of the alternative technology facility goals and objectives proposed by both the City and County of Los Angeles.

Footnotes:

[1] "tpd-6" means tons per day, at an average of 6 days per week.

Source : Los Angeles County Department of Public Works, SWIMS (May 2008), and 2006 Annual Report on the Los Angeles County Countywide Siting Element, June 2008

TABLE 4-20
SUMMARY OF CLASS III LANDFILL REMAINING DAILY DISPOSAL CAPACITY NEED (SHORTFALL)
FOR THE VARIOUS DISPOSAL CAPACITY NEED ANALYSIS SCENARIOS

Year	Waste Generation Rate	Imported Waste	Maximum Daily Transformation Capacity	Scenario No. 1 - Worst Case Scenario (Table 4-11)	Scenario No. 2 (Table 4-12)	Scenario No. 3 (Table 4-13)	Scenario No. 4 (Table 4-14)	Scenario No. 5 (Table 4-15)	Scenario No. 6 Best Case Scenario (Table 4-16)	Scenario No. 7 Optimistic Case Scenario - Optimistic Increase in Diversion Rate (Table 4-17)	Scenario No. 8 Optimistic Case Scenario - Optimistic Development of Alternative Technology Facilities Capacity (Table 4-18)
				Existing in-County Class III landfills and transformation facilities only	Scenario 1 plus currently available out-of-County disposal capacity	Scenario 2 plus realistic increase in diversion rate (50 percent by 2010 and up to 60 percent by 2020)	Scenario 3 plus realistic development of alternative technology facility capacity (1,200 tpd by 2010 and up to 10,000 tpd[1] by 2021)	Scenario 4 plus development of all proposed in-County Class III landfill expansions	Scenario 5 plus utilization of future available out-of-County disposal capacity	Scenario 6 plus optimistic increase in diversion rate (60 percent by 2013 and up to 75 percent by 2020)	Scenario 6 plus optimistic development of alternative technology facility capacity (13,000 tpd by 2014 and up to 15,000 tpd by 2021)
				Class III Landfill Remaining Daily Disposal Capacity Need (Shortfall)							
	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)
2006	76,305	854	1,715	0	0	0	0	0	0	0	0
2007	76,771	764	2,069	0	0	0	0	0	0	0	0
2008	77,772	900	2,069	(5,825)	-110	-110	-110	325	325	1,814	325
2009	78,947	900	2,069	-8,662	-2,947	-2,947	-2,947	488	488	3,512	488
2010	80,583	900	2,069	-9,408	-3,693	-3,693	-2,493	7,040	11,040	15,674	11,040
2011	82,190	900	2,069	-14,642	-8,927	-8,140	-6,640	7,392	11,392	16,910	11,392
2012	83,798	900	2,069	-15,376	-9,661	-8,056	-6,056	7,976	11,976	18,410	11,976
2013	85,501	900	2,069	-17,853	-12,138	-9,682	-7,182	8,550	12,550	20,762	12,550
2014	87,418	900	2,069	-31,928	-19,055	-15,705	-12,705	3,025	7,025	17,109	8,525
2015	89,207	900	2,069	-37,744	-24,871	-20,598	-16,598	4,132	8,132	18,426	10,632
2016	90,951	900	2,069	-38,540	-27,334	-22,105	-17,105	3,624	7,624	18,124	11,124
2017	92,686	900	2,069	-39,332	-28,126	-21,907	-15,907	4,821	8,821	19,525	15,321
2018	94,321	900	2,069	-40,078	-28,872	-21,638	-14,638	6,090	10,089	21,897	16,089
2019	95,958	900	2,069	-40,825	-29,619	-21,338	-13,338	7,389	11,389	24,333	16,889
2020	97,708	900	2,069	-43,457	-32,251	-22,708	-13,708	8,679	12,679	26,809	18,179
2021	99,537	900	2,069	-44,326	-33,120	-23,399	-13,399	9,019	13,019	27,412	18,019

Assumptions:

1. Import rate of 900 tpd from 2008 to 2021. Actual import rate are used for 2006 and 2007.
2. For Scenario 1, export quantities are considered part of the Class III landfill Disposal Need and the Daily Disposal Capacity Shortfall.

General Notes:

Scenario 1: Use of existing in-County Class III landfill and transformation facilities only (Worst Case).
Scenario 2: Use of existing in-County Class III landfill and transformation facilities, and utilization of currently available out-of-County disposal facility capacity (Status Quo).
Scenario 3: Use of existing in-County Class III landfill and transformation facilities; utilization of currently available out-of-County disposal facility capacity; and realistic increase in diversion rate (up to 60 percent by 2020).
Scenario 4: Use of existing in-County Class III landfill and transformation facilities; utilization of currently available out-of-County disposal facility capacity; realistic increase in diversion rate (up to 60 percent by 2020); and realistic development of alternative technology facility capacity (1,200 tpd by 2010 and up to 10,000 tpd by 2021). This assumes a full implementation of the alternative technology facility goals and objectives proposed by both the City and County of Los Angeles.
Scenario 5: Use of existing in-County Class III landfill and transformation facilities; utilization of currently available out-of-County disposal facility capacity; realistic increase in diversion rate (up to 60 percent in 2020); realistic development of alternative technology facility capacity (1,200 tpd by 2010 to 10,000 tpd by 2021); and development of Class III landfill expansions. This assumes a full implementation of the alternative technology facility goals and objectives proposed by both the City and County of Los Angeles.
Scenario 6: Use of existing in-County Class III landfill and transformation facilities; utilization of currently available out-of-County disposal facility capacity; realistic increase in diversion rate (up to 60 percent by 2020); realistic development of alternative technology facility capacity (1,200 tpd by 2010 and up to 10,000 tpd by 2021); Class III landfill expansions; and utilization of future available out-of-County disposal facility capacity. This assumes a full implementation of the alternative technology facility goals and objectives proposed by both the City and County of Los Angeles.
Scenario 7: Use of existing in-County Class III landfill and transformation facilities; utilization of currently available out-of-County disposal facility capacity; optimistic increase in diversion rate (up to 75 percent by 2020); realistic development of alternative technology facility capacity (1,200 tpd by 2010 and up to 10,000 tpd by 2021); development of all proposed in-County Class III landfill expansions; and utilization of future available out-of-County disposal facility capacity. This assumes a full implementation of the alternative technology facility goals and objectives proposed by both the City and County of Los Angeles.
Scenario 8: Use of existing in-County Class III landfill and transformation facilities; utilization of currently available out-of-County disposal facility capacity; realistic increase in diversion rate (up to 60 percent by 2020); optimistic development of alternative technology facility capacity (13,000 tpd by 2014 and up to 15,000 tpd by 2021); development of all proposed in-County Class III landfill expansions; and utilization of future available out-of-County disposal facility capacity. This assumes a full implementation of the alternative technology facility goals and objectives proposed by both the City and County of Los Angeles.

Footnotes:

[1] "tpd-6" means tons per day, at an average of 6 days per week.

Source : Los Angeles County Department of Public Works, SWIMS (May 2008), and 2006 Annual Report on the Los Angeles County Countywide Siting Element, June 2008

TABLE 4-21
SUMMARY OF CLASS III LANDFILL REMAINING DAILY DISPOSAL NEED
FOR THE VARIOUS DISPOSAL CAPACITY NEED ANALYSIS SCENARIOS

Year	Waste Generation Rate	Imported Waste	Maximum Daily Transformation Capacity	Scenario No. 1 - Worst Case Scenario (Table 4-11)	Scenario No. 2 (Table 4-12)	Scenario No. 3 (Table 4-13)	Scenario No. 4 (Table 4-14)	Scenario No. 5 (Table 4-15)	Scenario No. 6 Best Case Scenario (Table 4-16)	Scenario No. 7 Optimistic Case Scenario - Optimistic Increase in Diversion Rate (Table 4-17)	Scenario No. 8 Optimistic Case Scenario - Optimistic Development of Alternative Technology Facility Capacity (Table 4-18)
				Existing in-County Class III landfills and transformation facilities only	Scenario 1 plus currently available out-of-County disposal capacity	Scenario 2 plus realistic increase in diversion rate (50 percent by 2010 and up to 60 percent by 2020)	Scenario 3 plus realistic development of alternative technology facility capacity (1,200 tpd by 2010 and up to 10,000 tpd[1] by 2021)	Scenario 4 plus development of all proposed in-County Class III landfill expansions	Scenario 5 plus utilization of future available out-of-County disposal capacity	Scenario 6 plus optimistic increase in diversion rate (60 percent by 2013 and up to 75 percent by 2020)	Scenario 6 plus optimistic development of alternative technology facility capacity (13,000 tpd by 2014 and up to 15,000 tpd by 2021)
				Class III Landfill Remaining Daily Disposal Need							
	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)	(tpd-6)
2006	76,305	854	1,715	36,428	36,428	36,428	36,428	36,428	36,428	36,428	36,428
2007	76,771	764	2,069	35,613	35,613	35,613	35,613	35,613	35,613	35,613	35,613
2008	77,772	900	2,069	37,717	37,717	37,717	37,717	37,717	37,717	36,161	37,717
2009	78,947	900	2,069	38,305	38,305	38,305	38,305	38,305	38,305	35,147	38,305
2010	80,583	900	2,069	39,123	39,123	39,123	37,923	37,923	37,923	33,088	37,923
2011	82,190	900	2,069	39,926	39,926	39,104	37,604	37,604	37,604	31,851	37,604
2012	83,798	900	2,069	40,730	40,730	39,054	37,054	37,054	37,054	30,350	37,054
2013	85,501	900	2,069	41,582	41,582	39,017	36,517	36,517	36,517	27,966	36,517
2014	87,418	900	2,069	42,540	42,540	39,043	36,043	36,043	36,043	25,553	34,543
2015	89,207	900	2,069	43,435	43,435	38,974	34,974	34,974	34,974	24,269	32,474
2016	90,951	900	2,069	44,306	44,306	38,849	33,849	33,849	33,849	22,935	30,349
2017	92,686	900	2,069	45,174	45,174	38,686	32,686	32,686	32,686	21,563	26,186
2018	94,321	900	2,069	45,991	45,991	38,446	31,446	31,446	31,446	19,184	25,446
2019	95,958	900	2,069	46,810	46,810	38,174	30,174	30,174	30,174	16,740	24,674
2020	97,708	900	2,069	47,685	47,685	37,914	28,914	28,914	28,914	14,258	23,414
2021	99,537	900	2,069	48,600	48,600	38,646	28,646	28,646	28,646	13,715	23,646

Assumptions:

1. Import rate of 900 tpd from 2008 to 2021. Actual import rate are used for 2006 and 2007.
2. For Scenario 1, export quantities are considered part of the Class III landfill Disposal Need and the Daily Disposal Capacity Shortfall.

General Notes:

Scenario 1: Use of existing in-County Class III landfill and transformation facilities only (Worst Case).
Scenario 2: Use of existing in-County Class III landfill and transformation facilities, and utilization of currently available out-of-County disposal facility capacity (Status Quo).
Scenario 3: Use of existing in-County Class III landfill and transformation facilities; utilization of currently available out-of-County disposal facility capacity; and realistic increase in diversion rate (up to 60 percent by 2020).
Scenario 4: Use of existing in-County Class III landfill and transformation facilities; utilization of currently available out-of-County disposal facility capacity; realistic increase in diversion rate (up to 60 percent by 2020); and realistic development of alternative technology facility capacity (1,200 tpd by 2010 and up to 10,000 tpd by 2021). This assumes a full implementation of the alternative technology facility goals and objectives proposed by both the City and County of Los Angeles.
Scenario 5: Use of existing in-County Class III landfill and transformation facilities; utilization of currently available out-of-County disposal facility capacity; realistic increase in diversion rate (up to 60 percent in 2020); realistic development of alternative technology facility capacity (1,200 tpd by 2010 to 10,000 tpd by 2021); and development of Class III landfill expansions. This assumes a full implementation of the alternative technology facility goals and objectives proposed by both the City and County of Los Angeles.
Scenario 6: Use of existing in-County Class III landfill and transformation facilities; utilization of currently available out-of-County disposal facility capacity; realistic increase in diversion rate (up to 60 percent by 2020); realistic development of alternative technology facility capacity (1,200 tpd in 2010 and up to 10,000 tpd by 2021); development Class III landfill expansions; and utilization of future available out-of-County disposal facility capacity. This assumes a full implementation of the alternative technology facility goals and objectives proposed by both the City and County of Los Angeles.
Scenario 7: Use of existing in-County Class III landfill and transformation facilities; utilization of currently available out-of-County disposal facility capacity; optimistic increase in diversion rate (up to 75 percent by 2020); realistic development of alternative technology facility capacity (1,200 tpd in 2010 and up to 10,000 tpd by 2021); development of all proposed in-County Class III landfill expansions; and utilization of future available out-of-County disposal facility capacity. This assumes a full implementation of the alternative technology facility goals and objectives proposed by both the City and County of Los Angeles.
Scenario 8: Use of existing in-County Class III landfill and transformation facilities; utilization of currently available out-of-County disposal facility capacity; realistic increase in diversion rate (up to 60 percent by 2020); optimistic development of alternative technology facility capacity (13,000 tpd by 2014 and up to 15,000 tpd by 2021); development of all proposed in-County Class III landfill expansions; and utilization of future available out-of-County disposal facility capacity. This assumes a full implementation of the alternative technology facility goals and objectives proposed by both the City and County of Los Angeles.

Footnotes:

[1] "tpd-6" means tons per day, at an average of 6 days per week.

Source : Los Angeles County Department of Public Works, SWIMS (May 2008), and 2006 Annual Report on the Los Angeles County Countywide Siting Element, June 2008

Table 4-22

SUMMARY OF CURRENTLY AND FUTURE AVAILABLE OUT-OF-COUNTY DISPOSAL CAPACITY

(Based on January 1, 2006 through December 31, 2006 and
assuming AB 939 diversion is fully implemented)

Year	Alternative A[1] (Existing Staus Quo) (tons per day)	Alternative B[2] (Existing plus CSD's Waste-by-Rail Only) (tons per day)	Alternative C[3] (Existing plus CSD's Waste-by-Rail and Waste-by-Truck) (tons per day)	Alternative D[4] (Existing plus CSD's Waste-by-Rail, CSD's Waste-by-Truck and New and Expansion of Out-of-County Landfills) (tons per day)
2006	5,713	5,713	5,713	5,713
2007	5,715	5,715	5,715	5,715
2008	5,715	5,715	5,715	5,715
2009	5,715	5,715	5,715	5,715
2010	5,715	5,715	9,715	9,715
2011	5,715	5,715	9,715	9,715
2012	5,715	5,715	9,715	9,715
2013	5,715	5,715	9,715	9,715
2014	4,873	12,873	16,873	16,873
2015	4,873	12,873	16,873	16,873
2016	3,206	11,206	15,206	15,206
2017	3,206	11,206	15,206	15,206
2018	3,206	11,206	15,206	15,206
2019	3,206	11,206	15,206	15,206
2020	3,206	11,206	15,206	15,206
2021	3,206	11,206	15,206	15,206

Footnotes:

[1]Alternative A - includes utilization of currently available out-of-County disposal capacity only.
[2]Alternative B - "Alternative A" plus 8,000 tpd from County Sanitation Districts of Los Angeles County's (CSD) waste-by-rail starting from 2014.
[3]Alternative C - "Alternate B" plus 4,000 tpd of CSD's waste-by-truck to Mesquite Regional Landfill starting from 2010.
[4]Alternative D - "Alternative C" plus utilization of future available out-of-County disposal capacity, plus expansion of the potentially availabe out-of-County landfills.

Notes Assumptions:

1. The 2006 and 2007 export tonnages are based on actual data from Disposal Reporting System (DRS). The export tonnages for 2008 through 2021 are based on projected exports to out-of-County Class III landfills located in California that are currently available to accept solid waste from Los Angeles County (e.g., at anytime prior to January 1, 2006) based on the available (i.e., 2000-2006) Solid Waste Information System/DRS and other available information. Daily rate are based on landfill operating an average of 6 days per week or 312 days per year.
2. Condition 58 of Puente Hills Landfill CUP requires CSD to develop a waste-by-rail system that would be consistent with the daily disposal capacity of the facility and with specific milestones and tonnage reduction penalties. The milestones and penalties are: (1) To begin development of at least one remote landfill by December 31, 2007 or be assessed a penalty of 2,000 tpd reduction in their daily maximum permitted refuse intake capacity (13,200 tpd), (2) At least one remote landfill becomes operational by December 31, 2008, or be assessed a penalty of 1,000 tpd in their maximum permitted refuse intake capacity, and (3) Waste-by-rail system becomes operational by December 31, 2009, or be assessed a penalty of 2,000 tpd and every year thereafter in their daily maximum permitted refuse intake capacity. However, for the purpose of this chapter, it is assumed that CSD will meet all the milestones.
3. In 1997, Orange County entered into export agreement with Burrtec/EDCC, CSD, and Republic Industries to import a combined total of not less than 867,000 tons of municipal solid waste per year from Orange County to Frank R. Bowerman Sanitary Landfill, Olinda Alpha Sanitary Landfill and Prima Deshecha Canada Sanitary Landfill. Under the agreement, (1) Frank R. Bowerman Sanitary Landfill is to receive at least 255,000 tons per year (tpy) from CSD, (2) Olinda Alpha Sanitary Landfill is to receive at least 357,000 tpy from Republic Industries and 161,500 tpy from Burrtec/EDCC, with export agreements expiring in 2013 and 2015 respectively, and (3) Prima Deshecha Canada Sanitary Landfill is to receive 93,500 tpy from Burrtec/EDCC and will expire in 2015.
4. Simi Valley Landfill is expected to expand by year 2011. The various expansions of the out-of-County landfills would not result in a net increase in available daily export capacity because it results only in extension of life of (1) Simi Valley Landfill and Recycling Center from 2013 to 2031, and (2) Frank R. Bowerman Sanitary Landfill from 2014 to 2053. However, for the Orange County landfills, the additional disposal capacity due to the expansion will not be available after the export agreement with Burrtec/EDCC waste to Orange County Landfills will expire in 2013 unless the contract is renewed or negotiated.

Source : Los Angeles County Department of Public Works, SWIMS (May 2008), and 2006 Annual Report on the Los Angeles County Countywide Siting Element, June 2008