

Project Alternatives

18.1 Introduction

Section 15126(d) of the *California Environmental Quality Act (CEQA) Guidelines* requires an environmental impact report (EIR) to describe a range of reasonable alternatives to the Proposed Project, or to the location of the project, which could feasibly attain most of the basic project objectives while also avoiding or substantially lessening any of the significant environmental effects of the project identified in the EIR. A “rule of reason” governs the range of alternatives to be evaluated in the EIR, and specifies that an EIR should only discuss those alternatives necessary to allow a reasoned choice by decision makers. Of those alternatives considered, an EIR need examine in detail only those the lead agency determines could feasibly attain most of the basic objectives of the project.

As defined by Section 21061.1 of the *CEQA Guidelines*, “feasible” means an alternative that is capable of being accomplished in a successful manner within a reasonable period of time, taking into consideration economic, environmental, social, and technological factors. In determining the feasibility of an alternative, the EIR evaluation must consider several factors including site suitability, economic viability, availability of infrastructure, general plan consistency, regulatory limitations, jurisdictional boundaries, and whether the project applicant can reasonably acquire, control, or otherwise have reasonable access to an alternative facility or proposed alternative site. In the case of a private applicant (i.e., not a public agency with eminent domain powers), the applicant does not have the power of eminent domain and cannot acquire the property of others for its intended use. Thus, absent other factors, an EIR is not required to evaluate and study potential offsite alternatives not owned or controlled by an applicant. In addition, if an alternative would cause one or more significant effects, over and beyond those associated with the proposed project after mitigation is applied, those significant effects must be discussed, but in less detail than the project’s effects.

The purpose and objectives of the Proposed Project are restated in Section 18.2. Alternatives considered but not evaluated in detail are discussed in Section 18.3. Section 18.4 presents alternatives fully analyzed in this Draft EIR (DEIR) and Section 18.5 provides a comparison of the alternatives. Finally, Section 18.6 makes a determination about the environmentally superior alternative.

18.2 Project Purpose and Objectives

The basic project objectives of the Chiquita Canyon Landfill (CCL) Master Plan Revision (Proposed Project) were considered in selecting alternatives for evaluation and comparison in this chapter to determine whether such alternatives can feasibly attain most of such objectives. For reference purposes, the purposes and objectives of the Proposed Project are summarized below.

The purpose of the Proposed Project is to provide additional disposal capacity through continued operation of CCL to help meet the critical solid waste management needs of Los Angeles County. Development of additional economically viable disposal capacity in a reasonable timeframe is of vital importance to meet the current and anticipated needs for the Santa Clarita Valley and the greater Los Angeles area, as existing landfills reach capacity and close. The Proposed Project will capitalize on the unique opportunity to utilize the existing CCL facility to develop additional disposal capacity.

The primary objectives of the Proposed Project are:

- To help meet the interim disposal needs of the Santa Clarita Valley and greater Los Angeles area, and to postpone or prevent a shortage of cost-effective local disposal capacity projected to occur in the future (e.g., Los Angeles County Department of Public Works [LACDPW], 2013)

- To provide environmentally sound, safe, and cost-effective disposal capacity through continued operation and development of the existing CCL facility; prevent premature closure of the landfill with underutilized remaining permitted airspace capacity; and avoid potential rail transportation impacts
- To continue to provide landfill waste diversion programs that are relied upon by many local cities and communities in achieving state-mandated goals

The LACDPW estimated the solid waste disposal quantity for Los Angeles County was 8,612,083 tons in 2012. Of this amount, 6,239,143 tons were disposed of at Class III landfills in the county and 528,725 tons were disposed of at transformation facilities in the county. Countywide, the diversion rate for this quantity of solid waste was estimated at 60 percent. The estimated waste exported to out-of-county landfills was 1,844,175 tons. At the end of 2012, the total remaining permitted Class III landfill capacity in the county was estimated at 129.2 million tons. By the end of the year 2026, the Class III landfill capacity is estimated at 134 million tons, resulting in a potential deficiency of approximately 5 million tons (LACDPW, 2013).

In 2013, LACDPW conducted an analysis evaluating nine potential scenarios to help the County determine how to maintain adequate solid waste disposal capacity from 2013 to 2026. The analysis included the following scenarios: (1) status quo scenario; (2) increase in diversion rate; (3) utilization of alternative technology capacity; (4) in-county Class III landfill expansions with out-of-county disposal capacity; (5) increase in available out-of-County disposal capacity; (6) maximizing diversion rate; (7) increase in alternative technology capacity; (8) full utilization of out-of-county disposal capacity; and (9) full utilization of out-of-county disposal capacity. Out of the nine scenarios conducted, the first three (1-3) resulted in a disposal capacity shortfall during the planning period. The remaining six scenarios (4-9) were determined to avert a disposal capacity shortfall during the planning period. Scenarios 4 through 9 all include expanding existing landfills in the county. LACDPW concluded that “without expanding existing landfills in the County, available disposal capacity would be inadequate to meet the Daily Disposal Demand of all 88 cities and the unincorporated County areas” and would result in a disposal capacity shortfall before the end of the 15-year study period (LACDPW, 2013).

18.3 Alternatives Considered But Not Evaluated in Detail

To determine the alternatives suitable for a detailed discussion in this DEIR, the preparers evaluated a wide range of alternatives, including offsite facility alternatives and non-disposal alternatives. This broad range of alternatives was initially reviewed in light of the Proposed Project’s objectives, to evaluate whether and to what extent the Proposed Project’s objectives and needs could be met by potential alternatives, which might be available either technologically or at other site locations. Based on this initial screening-level evaluation, it was determined that rail haul transport and an alternative landfill design could not feasibly attain the objectives of the Proposed Project. These potential alternatives are discussed below.

18.3.1 Rail Haul Transport to Out-of-County Landfills

LACDPW and the Los Angeles County Sanitation District (LACSD) have continued to pursue the development of out-of-county disposal through waste-by-rail systems as a partial source of long-term disposal capacity for the greater metropolitan Los Angeles regional system.

Two proposed disposal facilities include the Eagle Mountain Landfill in Riverside County and the Mesquite Regional Landfill in Imperial County. LACSD acquired the Mesquite Regional Landfill in the fall of 2013, and intended to transfer solid waste by rail to this facility upon the closure of Puente Hills Landfill (PHL), utilizing an intermodal facility at the PHL. However, LACSD determined that although it will still cease operation of PHL for landfill disposal operations effective October 2013, the intermodal transfer capability being developed at PHL will not be used to import solid waste by rail or truck to Mesquite Regional Landfill. Instead, LACSD intends to process and transfer residual wastes after processing to one or more disposal facilities, and to that end, published a request for proposals (RFP) in the fall of 2012 seeking proposals for disposal of residual wastes after processing at the PHL Material Recovery Facility (MRF). Following issuance of the LACSD RFP, LACSD entered into a disposal agreement with the Orange County Solid Waste Disposal System.

The Eagle Mountain Landfill has been involved in protracted litigation since 1999 relative to a Bureau of Land Management (BLM) land exchange and transfer associated with that project. In 2000, LACSD acquired the right to buy Mine Reclamation Corporation (MRC), the company which owns and sought permits for the Eagle Mountain project. Recent court decisions adverse to the Eagle Mountain project required the Eagle Mountain project proponents to undertake additional environmental review and a new or modified land transfer/exchange with BLM. In 2011, MRC notified LACSD that they were no longer willing to extend escrow on the purchase and sale transaction. The LACSD Board directed its staff to close escrow and hold MRC to its obligations under the LACSD purchase agreement. MRC immediately filed for bankruptcy. LACSD and MRC were in negotiations since that time regarding the property and the landfill project. On May 22, 2013, the LACSD Board determined that LACSD would cease all negotiations with MRC and directed LACSD staff to undertake an ongoing evaluation of long-term waste management strategies.

Also, in 2012, Kaiser Ventures LLC, the parent company of MRC, determined that it will no longer financially support making further revisions to the National Environmental Policy Act documents and the BLM Record of Decision to address the BLM land exchange infirmities identified in judicial decisions. As a result of these developments, the Eagle Mountain project can no longer be considered active, viable, or feasible.

Eagle Mountain Landfill and Mesquite Regional Landfill are remote desert landfill sites, located well over 200 miles from CCL. Currently there is no transfer station (TS) in northern Los Angeles County and no rail loading facility to accommodate the consolidation and transportation of waste. Furthermore, population projections have indicated that Los Angeles County and the area surrounding Chiquita Canyon will continue to grow and generate more refuse in the future. The waste generated in the Chiquita Canyon waste shed would be transported over a much farther distance for disposal, thus potentially resulting in increased air emissions over those anticipated for the Proposed Project. Waste transport by train also has impacts on noise levels, vibration, traffic, and air quality, unlike those associated with truck transport.

At present and for the foreseeable future, LACSD has determined that waste-by-rail to Mesquite Regional Landfill is not feasible. Instead, LACSD will process solid waste at the PHL facility and transfer residual wastes to one or more landfill facilities, but not to remote desert landfill locations.

This alternative would not meet most of the basic project objectives, because consideration of waste-by-rail to remote locations would not secure landfill capacity in proximity to population centers served by CCL prior to projected capacity shortfalls; would not expand CCL within its existing leasehold boundaries; and would not maximize the utilization of available airspace within the CCL site property holdings and realize the value of the property to its fullest potential. The applicant does not own or control a site served by a rail haul or intermodal capability. For all of the above reasons, remote/out-of-county rail haul landfills cannot reasonably be considered a feasible alternative to the Project and, therefore, rail haul transport to out-of-county landfills has been eliminated from further evaluation in this DEIR.

18.3.2 Alternative Landfill Project Design

Consideration was given to an alternative that would limit the size of an expansion, resulting in a smaller amount of additional onsite capacity. Using the criteria established in the *CEQA Guidelines*, an onsite alternative would be considered feasible if it were capable of successfully being implemented in a reasonable timeframe; however, the alternative landfill project design should also be able to feasibly attain most of the project objectives. In the context of CCL, any alternative restricting the landfill operator from obtaining a substantial amount of additional disposal capacity (i.e., an areal expansion) would not meet most of the project objectives and, thus, would not be considered feasible. A reduced onsite alternative landfill was therefore not studied in detail, because it would not meet the objectives of the project to develop a substantial source of additional landfill disposal capacity given short- and long-term demand.

The permitting history for the landfill demonstrates that a reduced onsite alternative landfill concept is already reflected in the current conditional use permit (CUP) constraints for CCL. The current landfill, as limited by the CUP conditions, is a reduced onsite alternative landfill that resulted from the permitting and approval process, which occurred with the previous environmental review and project approval in 1996 to 1997. The ultimate

landfill approval reduced and limited the size of the then-proposed landfill, limited the then-proposed daily tonnage, and placed an overall tonnage cap of 23 million tons, limiting the total amount of materials the landfill can dispose of irrespective of whether the landfill has remaining capacity or has reached its permitted height. These conditions would result in the early closure of the landfill before its capacity can be realized, without additional expansion.

Thus, the alternative concept of reducing and/or limiting site expansion has already been demonstrated to be an alternative that could not feasibly attain the objectives of the Proposed Project. The capacity and service life of a solid waste landfill are based on a number of interconnected variables including daily incoming tonnage, horizontal size, and vertical height of the facility. Disposal volume or capacity of a landfill can be increased by either vertical and/or horizontal expansion. The service life of a landfill can be increased by one or a combination of the following scenarios: (1) reducing its daily intake, (2) increasing its areal extent, or (3) increasing its vertical extent. The prior permitting process and final approval reduced the requested daily receipts rate from what was proposed, and substantially decreased the size of the lateral expansion applied for in the previously proposed expansion project, while allowing an increase in the vertical extension but placing a tonnage cap on the operations that essentially took away any perceived benefit of the vertical extension authorized. Thus, the Proposed Project has been necessitated by the limitations that were imposed on the prior review of the landfill's proposed expansion in 1996 to 1997. Given that the Proposed Project is a direct result of the limitations placed on the previous facility expansion and permit conditions, it is expected that a reduced alternative design would potentially place the facility in a similar circumstance within the next several years. The discussion of in-county landfill disposal capacity in Section 18.4.1.1 illustrates this point.

There are no realistic onsite reduced project alternatives that could feasibly attain most or all of the project objectives, because they would not provide short-term, contingency, or long-term disposal tonnage options to the County; do not offer resource recovery and employment opportunities; would not avoid the significant effects of the expansion; and would not enhance local or regional infrastructure.

18.4 Evaluation of Project Alternatives

This section addresses alternatives to the Proposed Project with a view to avoiding or substantially lessening significant effects of the Proposed Project. In accordance with Section 15126(d) of the CEQA Guidelines, three alternatives are presented in this evaluation to foster meaningful public participation and informed decision making on the subject:

- Alternative A: No Project Alternative
- Alternative B: Waste Reduction and Alternative Technologies
- Alternative C: Alternative New Site in Northern Los Angeles County

18.4.1 Alternative A: No Project Alternative

CEQA requires that an EIR consider the No Project Alternative. For this DEIR, the No Project Alternative is no approval of an expansion of the existing CCL, resulting in the cessation of waste receipts and consequent closure of the existing landfill operations. The current CUP closure date is 2019, however the facility is expected to reach its permit-based disposal limitation of 23 million tons established in the current CUP between 2015 and 2019. Under the No Project Alternative, operation of the landfill with continue until the disposal limitation of 23 million tons established in the current CUP is reached, after which time the landfill would close. With the No Project Alternative, no horizontal or vertical extension of the landfill footprint would occur. Communities that currently rely on the CCL for waste diversion would not have access to that activity and the composting operation and HHWF at CCL would not be developed. The set-aside of land for potential future conversion technology would not be established and site operational elements, such as free cleanup days for the Val Verde community, would no longer be held with the closure of the facility. Operation of the LFGTE Plant would continue many years beyond site closure.

The operational and maintenance requirements of Title 27 California Code of Regulations (CCR), Chapter 5, would need to be met. Under the closure plan requirements, the closure activities would include the placement of final cover, vegetation of the completed areas, construction of permanent drainage features, removal of landfill structures (e.g., scale house, office), and provisions for site security. Closure activities would begin in accordance with the schedule in the approved Final Closure and Postclosure Maintenance Plan. The facility owner and operator would continue to operate the existing groundwater monitoring network and landfill gas (LFG) collection system during the closure and post-closure maintenance periods.

18.4.1.1 Feasibility

The No Project Alternative would require all waste destined for CCL to be redirected to other landfills in the region or otherwise disposed, diverted, or recycled, subject to applicable permit limits, local laws and regulations, and market conditions. An overview of the landfill disposal system for Los Angeles County is described in the *County of Los Angeles Countywide Integrated Waste Management Plan 2012 Annual Report* (LACDPW, 2013). Waste disposal tonnage in Los Angeles County in 2012 is presented in Table 18-1.

TABLE 18-1
Annual Disposal Tonnage for 2012

Facility Type/Exports	Amount Disposed	Units
In-County Class III Landfills	6,304,060	tons
Transformation Facilities	569,539	tons
Exports to Out-of-County Landfills	1,844,175	tons
Subtotal MSW Disposed	8,717,773	tons
Permitted Inert Waste Landfills	89,142	tons
Grand Total Disposed	8,806,915	tons
Average Daily Disposal Rate for 2012 (Based on 6 Operating Days)		
In-County Class III Landfills	20,205	tpd
Transformation Facilities	1,825	tpd
Exports to Out-of-County Landfills	5,911	tpd
Subtotal MSW Disposed	27,942	tpd
Permitted Inert Waste Landfills	286	tpd
Grand Total Disposed	28,227	tpd

Note:

MSW = municipal solid waste

As of December 31, 2012, the total remaining permitted Class III landfill capacity for in-county landfill disposal facilities is estimated at 129.2 million tons, as determined by LACDPW in the *County of Los Angeles Countywide Integrated Waste Management Plan 2012 Annual Report* ("2012 Annual Report") prepared and distributed in August 2013 and considering permit restrictions. Refer to Appendix E-2 of the 2012 Annual Report (provided as Appendix K of this DEIR) for the following information.

- Table 1 provides detailed information on remaining landfill disposal capacity by facility.
- Table 2 summarizes the remaining disposal capacity of engineered inert material landfills.
- Table 3 summarizes the remaining disposal capacity for out-of-county landfills.

LACDPW's long-term solid waste planning discussed in detail in the 2012 Annual Report includes both implementation and expansion of recycling programs, development of in-county capacity increases through expansions of existing facilities, promotion and development of conversion technologies, and use of out-of-county remote landfills. The 2012 Annual Report evaluates nine scenarios, which attempt to measure the effect of increasing diversion rates and utilization of alternative technologies and additional waste exportation

under a number of conditions (Refer to Appendix E-4 of the 2012 Annual Report in Appendix K of this DEIR for detailed data). The analysis is helpful because it looks at many different combinations to determine whether a capacity shortfall exists. The analysis concludes that under any of the scenarios, it is essential that in-county landfill expansions be approved and used to avoid a shortfall in disposal capacity. The No Project Alternative, which by definition postulates that the Proposed Project is not approved and built, would therefore result in the County not meeting its capacity needs as analyzed by LACDPW. A discussion of the scenarios analyzed in the 2012 Annual Report is provided below.

2012 Annual Report Disposal Capacity Analysis Scenarios

Scenario I—the status quo—assumes no expansions of existing landfills, no new landfills, and no additional capacity from alternative technologies. Scenario I aptly depicts a No Project Alternative scenario with respect to the Proposed Project, because it reflects the status quo without the Proposed Project. In addition, the following assumptions are made with respect to imports and exports:

- Imports – Based on the average rate of 452 tpd for 2012, waste import quantities are projected to be 500 tpd for 2013 and 700 tpd every year thereafter.
- Exports – The amount of waste exported out-of-county in 2012 was approximately 5,911 tpd and it is assumed to remain at 6,200 tpd through the remainder of the planning period.

Based on these assumptions, with Scenario I, a disposal capacity shortfall is expected to occur during the planning period. Since the shortfall would occur prior to 2026, Scenario I shows that existing capacity would not meet the daily disposal demand of the county.

Scenario II assumes an increase in the diversion rate up to 65 percent, using existing in-county Class III landfills and transformation facilities together with current available out-of-county disposal capacity (6,200 tpd). In addition, the following assumptions are made:

- Imports – Based on the average rate of 452 tpd for 2012, waste import quantities are projected to be 500 tpd for 2013 and 700 tpd every year thereafter.
- Exports – The amount of waste exported out-of-county in 2011 was approximately 5,911 tpd, and it is assumed to be at 6,200 tpd through the remainder of the planning period.

Based on these assumptions, a disposal capacity shortfall is expected to occur during the planning period. Since the shortfall would occur prior to the year 2026, Scenario II shows that development of all in-county proposed expansions alone would not be able to meet the County's daily disposal demand.

Scenario III assumes utilization of potential alternative technology capacity, up to 2,300 tpd, together with existing in-county landfills and transformation facilities, and utilizing current available out-of-county landfill disposal capacity. Scenario III also includes an increase in the diversion rate up to 65 percent. Scenario III assumes that by 2017, alternative technology facilities for residential waste would become operational in the county. The permitted capacity of these facilities is estimated to start at 1,300 tpd in 2017 and increase to 2,300 tpd in 2021. In addition, the following assumptions are made:

- Imports – Based on the average rate of 452 tpd for 2012, waste import quantities are projected to be 500 tpd for 2013 and 700 tpd every year thereafter.
- Exports – The amount of solid waste exported out-of-county of approximately 5,911 tpd is assumed to remain at 6,200 tpd through the remainder of the planning period.

Based on these assumptions, a disposal capacity shortfall is expected to occur during the planning period. Therefore, the increased alternative technology capacity of up to 2,300 tpd would not be able to meet the County's daily disposal demand.

Scenario IV evaluates in-county Class III landfill expansions (with no increase in out-of-county disposal capacity), existing in-county Class III landfills and transformation facilities, current available out-of-county disposal capacity, and an increased diversion rate up to 65 percent. In addition, this scenario includes

utilization of potential alternative technology capacity up to 2,300 tpd. Scenario IV has the following import/export assumptions:

- Imports – Based on the average rate of 452 tpd for 2012, waste import quantities are projected to be 500 tpd for 2013 and 700 tpd every year thereafter.
- Exports – The approximately 5,911 tpd of solid waste export is assumed to remain at 6,200 tpd through the remainder of the planning period.

Based on these assumptions, a disposal capacity shortfall could be averted during the 15-year planning period. Therefore, the 2012 Annual Report concludes that development of proposed in-county landfill expansions, using potential alternative technologies, and exporting up to 6,200 tpd would be able to meet the County's daily landfill disposal demand.

Scenario V, an increase in available out-of-county landfill disposal capacity, uses the same assumptions as Scenario IV, with the exception of assuming the increased out-of-county disposal capacity. The amount of waste exported out-of-county in 2012 was approximately 5,911 tpd and is assumed to gradually increase up to 12,000 tpd during the planning period. Based on these assumptions, a disposal capacity shortfall would be averted during the 15-year planning period. Therefore, development of proposed landfill expansions and exporting up to 12,000 tpd would allow the County to meet its daily disposal demand.

Scenarios VI through IX evaluate additional scenarios, which include approval of in-county landfill expansions, increased diversion rates up to 75 percent and increased importation of wastes. The analyses conclude that development of proposed landfill expansions with increased exportation of solid waste and increased use of alternative technologies would allow the County to meet its daily disposal demand.

To determine the short- and long-term effects of the No Project Alternative on the waste management system in Los Angeles County, this DEIR has evaluated all of the scenarios examined in detail by LACDPW in its 2012 Annual Report. There is no short- or long-term capacity sufficient to handle CCL's solid waste at either Antelope or Lancaster, even with an expansion to 3,000 tpd for Antelope Valley. In addition, the approved developments in and around the Santa Clarita area will add 16,000 new homes in the next two decades, thus substantially contributing to the increased capacity demand noted in the LACDPW projections.¹ Thus, a Countywide and northern Los Angeles County regional capacity shortfall will exist within 2 to 3 years when CCL is anticipated to close under the No Project Alternative.

18.4.1.2 Environmental Analysis

In accordance with CEQA, the following analysis evaluates the environmental impacts of the No Project alternative, as well as the secondary impacts of the possible redistribution of CCL's waste to other permitted facilities under their existing permit conditions.

The final elevation of the landfill units would not reach the permitted maximum of 1,430 feet above mean sea level, except in one area. This is a result of the effect of the 23-million-ton cap, which artificially eliminates a substantial amount of available capacity within the existing approved landfill footprint. In general, the No Project Alternative is a continuation of the existing operations until capacity is reached. A summary of the anticipated impacts of the No Project Alternative is provided in Table 18-2.

¹ At the outset of the discussion regarding system capacity to absorb a redistribution of solid waste currently disposed of at CCL, it must be noted that since 2008, waste disposal data have been lower than historically available information primarily because of the Global Recession, the worst economic downturn since the Great Depression of the 1930s. Reduction in economic activity such as demolition and construction and associated disposal and recycling volumes has temporarily lowered the overall estimates of disposal volumes and thus tends to overstate the remaining landfill capacity if viewed in isolation apart from the inevitable return to a more normal economic level of activity, which will include homebuilding, generation of construction and demolition debris, and ultimately an increase in disposal volumes as people move into new homes.

TABLE 18-2

**Alternative A: No Project
Potential Environmental Impacts**

Environmental Resource Area	Alternative A: No Project
Land Use	Under Alternative A, there would be no expansion of the existing landfill and therefore no impacts to land use would occur.
Geology and Hydrogeology	Under Alternative A, there would be no expansion of the existing landfill and therefore no impacts to geology and hydrology would occur.
Surface Water Drainage	Under Alternative A, no construction would occur, and drainage patterns on the Project site would not be altered from existing conditions. Absent any expanded landfill operations under this alternative and compliance with the existing WDRs and Industrial Stormwater Pollution Prevention Plan (SWPPP), there would be no impacts related to surface water hydrology or water quality.
Water Quality	See Surface Water Drainage above.
Biological Resources	The impacts related to biological resources would be less for Alternative A compared to the Proposed Project. The landfill expansion area affected by the Proposed Project, and the potential species found in those areas, would experience little to no disturbance with Alternative A.
Cultural and Paleontological Resources	The impacts related to cultural and paleontological resources would be less for Alternative A compared to the Proposed Project. The landfill expansion area affected by the Proposed Project would experience little to no disturbance with Alternative A.
Traffic and Transportation	Alternative A would not involve an increase in the currently permitted disposal truck trips. However, when CCL ceases to accept Class III waste streams, the existing car and truck traffic associated with the currently permitted operations would be redirected to other landfills. This would result in additional traffic traveling on state highways and county roads, which may be experiencing congested conditions unlike the roadways serving the project site. The impacts to transportation and traffic from Alternative A would likely be greater than those of the Proposed Project, and are potentially significant.
Air Quality	<p>Alternative A would involve no expansion of the existing landfill or construction associated with the relocation of existing facilities. There would be no increase in daily tonnage or vehicles beyond that already permitted and the life expectancy of the landfill would not be increased. When CCL reaches its permitted capacity, air quality emissions associated with daily operations (e.g., truck trips, active face activity, and daily cover application using heavy equipment) would be substantially lessened. Air emissions and potential impacts are not eliminated; however, because the LFG collection and disposal system would continue to operate for a minimum of 30 years; and the closure plan would require construction of the final cover and periodic maintenance trips to the facility.</p> <p>Once the capacity of the permitted waste cells are reached, the annual air quality impacts from landfill operations would cease, but such effects would be transferred to other landfill locations within the same air basin (South Coast Air Basin). Furthermore, the waste would need to be hauled longer distances to other landfills. Air quality impacts resulting from Alternative A could be significant and unavoidable and greater than those of the Proposed Project due to increased mobile emissions.</p>
Greenhouse Gas Emissions and Climate Change	As described above, under Alternative A, no waste would be placed beyond the current permitted capacity and all associated operations emissions would stop once capacity is reached. Greenhouse gas (GHG) emissions generated from the waste are assumed to be equivalent for the Proposed Project and Alternative A, because the generation of greenhouse gases would take place at any facility where the waste was disposed. However, transportation-related air quality impacts, including increased GHG-related mobile emissions would increase with transport of waste to more distant locations. Additional indirect impacts would occur from waste that normally would have gone to CCL, using up available capacity at other Class III landfills, which are generally limited within the state, thereby resulting in the early closure of other Class III sites. This closure would create cascading direct, and indirect impacts in that it would result in the waste from other facilities being redirected to Class III landfills or otherwise requiring the construction of a new Class III facility if the Project is not constructed. Impacts related to GHG emissions are likely to be similar to or slightly greater than the Proposed Project.

TABLE 18-2

**Alternative A: No Project
Potential Environmental Impacts**

Environmental Resource Area	Alternative A: No Project
Noise	Under Alternative A, the existing landfill operation would remain active until the site reaches its current permitted capacity. Therefore, impacts related to noise would be similar to the Proposed Project, but the noise impacts associated with Alternative A would end sooner than for the Proposed Project.
Public Services and Utilities	Under Alternative A, the existing landfill would continue to operate under the existing CUP. The demand for fire or police protection services would be similar to the Proposed Project but would end sooner than for the Proposed Project.
Visual Resources	Alternative A would involve no expansion of the existing landfill or construction associated with the relocation of existing facilities, thereby retaining the current visual character of the site. The existing landfill is an established and accepted part of the landscape. Alternative A would continue operations until the disposal area reaches capacity. Final closure of the existing facility would not occur until after capacity is reached. Alternative A would avoid the visual changes associated with the new project facilities and extended waste footprint. There would be no impacts to visual resources from Alternative A.
Environmental Justice and Socioeconomics	Under Alternative A, the existing landfill would continue to operate under the existing CUP and there would be no impacts to environmental justice and socioeconomics.
Meet Project Objectives?	No
Reduce Significant and Unavoidable Impacts?	No

18.4.1.3 No Project Alternative Conclusion

The No Project Alternative is not considered to be a feasible alternative to the Proposed Project because it neither avoids nor substantially lessens the effects associated with air quality, nor accomplishes the primary purposes and objectives of the Proposed Project. This is based on the following:

- Most of the basic project objectives would not be achieved, such as expanding CCL with additional capacity and resource recovery operations; providing in-county daily disposal capacity and general long-term capacity; providing convenient access and competitive pricing to landfill users; supporting future infrastructure needs of the area; and maximizing the value of the operations.
- Closing CCL would not afford the County of Los Angeles the opportunity to maximize the use of CCL's location as a potential expansion site to develop needed landfill disposal capacity, as well as to realize other waste disposal reductions associated with resource recovery and beneficial reuse operations.
- If CCL ceases to accept waste under the No Project Alternative, the County's short- and long-term disposal capacity shortfall will be exacerbated.
- To achieve available capacity, permit conditions for the remaining landfills in the system would have to be changed to allow increased daily tonnage, and/or sites would have to be expanded to satisfy the short- and long-term daily disposal need with the closure of CCL. Under those circumstances, unanticipated significant environmental impacts of increased waste disposal could be transferred to other locations in the county or elsewhere. To change permits or expand other sites, each permitting agency would have to undertake a permit revision, as discretionary projects under CEQA. Each change in a permit would entail a public review process under CEQA.

To the extent that the system is able to absorb the wastes currently disposed of at CCL, many of the daily operational impacts would be simply transferred from one facility to another.

18.4.2 Alternative B: Waste Reduction and Alternative Technologies

This alternative describes and evaluates waste reduction techniques and alternative technologies that could potentially be applied to the solid waste management system in Los Angeles County, including source reduction, mechanical volume reduction, resource recovery, and conversion technologies. Given the large diversity of existing conversion technologies, it is not practical to provide an exhaustive description and analysis of these systems, or their many variants, in this DEIR. This section summarizes the primary technological, economic, and environmental advantages and disadvantages of waste reduction and conversions technologies as a whole.

Los Angeles County Diversion Rates

Assembly Bill (AB) 939 initially required that a waste diversion level of 25 percent be achieved by cities and unincorporated areas within Los Angeles County by 1995, with a waste diversion level of 50 percent to be achieved by the year 2000. Senate Bill (SB) 341 established a new goal of an overall statewide landfill diversion rate of 75 percent by the year 2020. Each county prepares and administers a Countywide Integrated Waste Management Plan (CIWMP). This plan comprises the County's and the cities' solid waste reduction planning documents plus an Integrated Waste Management Summary Plan (Summary Plan) and a Countywide Siting Element.

The County of Los Angeles includes 88 cities and approximately 150 unincorporated communities with a combined population in excess of 10 million. The County of Los Angeles has the largest and most complex solid waste management system in the country, with over 140 permitted waste haulers, 29 large volume TS/MRFs, 11 MSW landfills, 11 inert waste landfills, 2 waste-to-energy facilities, 43 construction and demolition debris recycling facilities, and 350 recyclers. Each year, Los Angeles County residents and businesses generate approximately 21.5 million tons of materials, with approximately 60 percent being diverted through source reduction and recycling away from disposal. This presents a challenge in not only protecting the public health and safety and the environment through effective solid waste management on a daily basis, but also continuing to expand waste reduction, resource recovery, and recycling programs and policies.

In order to assess jurisdiction's compliance with AB 939, the Disposal Reporting System was established to measure the amount of disposal from each jurisdiction and determine if it had met the goals. With the passage and implementation of SB 1016, the California Department of Resources Recycling and Recovery (CalRecycle) no longer calculates diversion rates based on actual disposal and estimated annual generation. As a result, countywide diversion rates are no longer calculated. The last diversion rates approved by CalRecycle were for 2006. Considering each jurisdiction's approved diversion rate, a countywide diversion rate for 2006 was estimated to be 58 percent.

Under SB 1016, a target per capita disposal rate, which is equivalent to a 50 percent diversion rate, is calculated using an approved jurisdiction-specific average of per capita generation rates of years 2003 to 2006. To establish compliance with AB 939, each jurisdiction's per capita disposal rate is calculated for each reporting year and compared with their individual target rates.

Using projections of population, employment, and real taxable sales from the University of California, Los Angeles, LACDPW estimates that in order to meet the per capita disposal requirements, jurisdictions in Los Angeles County would need to continue their diversion programs, employ other disposal reduction strategies, and as a whole maintain and/or improve the existing diversion rate.

18.4.2.1 Source Reduction

Source reduction generally involves the alteration of manufacturing and packaging techniques and a change in consumer purchasing and use habits to minimize the amount of waste that is generated. In the United States, a significant reduction in unnecessary disposable items could result in a substantial reduction of the overall waste stream. Specific source reduction techniques that city and county jurisdictions are evaluating to meet the requirements mandated by the Integrated Waste Management Act include:

- Increasing the use of recycled materials

- Reducing packaging and increasing the use of reusable containers
- Reducing the generation of yard wastes and encouraging composting or other similar measures
- Purchasing repairable items
- Providing economic incentives to reduce waste generation and to recycle materials
- Providing convenient recycling programs such as curbside pickup or neighborhood recycling centers
- Promoting the efficient use of raw and manufactured materials

18.4.2.2 Mechanical Volume Reduction

Mechanical volume reduction involves physically diminishing waste volumes through compaction, baling, shredding, or other similar measures. Mechanical reduction can take place prior to disposal at the landfill or at the landfill site itself.

Compaction

The compaction of wastes can occur one or more times starting from the point of residential, commercial, or industrial generation to final disposal. Typical compaction methods include:

- Compaction units at the waste source such as under-the-counter garbage compactors in homes, and larger units capable of servicing large business or industrial refuse
- Compaction of wastes by collection vehicle, which can also maximize load capacities and collection efficiency
- Compaction of refuse at a TS
- Compaction at the landfill site during fill operations (currently in use by CCL)

Baling

Baling, or the balefill method, is a special type of compaction whereby waste material is bound into uniform-size bales prior to being placed in a fill area. Baling can result in reduction in volume. If baling occurs offsite of the landfill, economic advantages could include reduced transportation costs owing to the high density and uniform bales that increase the efficiency of transport vehicle space. Other segments of the solid waste industry have argued that the balefill method is not without its own problems. Refuse density governs the degree to which the service life of a landfill can be extended. Common densities achieved by conventional landfilling range from 1,100 to 1,300 pounds per cubic yard for in-place refuse. In some instances, these densities can be higher depending on the quality of compaction efforts and the types of refuse being received. Depending on the baling equipment, the balefill method can achieve a refuse density that could exceed 2,000 pounds per cubic yard. Even though the waste is highly compacted (dense), the bales do not resemble perfect blocks. When stacked in the landfill, air space or voids between the bales reduce the effective refuse density by approximately 5 percent. This 5 percent reduction, if accurate, would significantly increase the refuse-to-cover material volume ratio over that of a conventional landfill operation. This would mean that daily soil cover requirements could increase substantially. If the additional soil requirements were not available from excavation activities onsite, this soil would need to be imported from an offsite location.

CCL does not currently receive baled materials nor does it bale waste onsite, and the Proposed Project does not include plans to do so. In Southern California, the only operating balefill is a small landfill operation at the Pebbly Beach Landfill on Santa Catalina Island, which is approximately a 20-tpd operation. There is no balefill operating in California at the scale of the Proposed Project.

18.4.2.3 Resource Recovery

Resource recovery includes the salvaging of recyclable or valuable materials from the waste stream prior to disposal. Resources that can be recovered include reusable materials, energy in the form of LFG or through the incineration of wastes (refuse to energy process), and organic matter through composting. Paper, greenwaste/yard waste, and food waste make up the major quantity of materials targeted for recovery in the future and waste stream projections indicate that the residential sector produces the largest quantity of

materials expected to be recovered through near-term recycling programs. Materials recovery facilities combined with source-separated curbside recycling programs have been identified as the primary methods available for processing the quantities of recyclable wastes expected by county diversion programs. Diversion of greater quantities in the commercial and industrial waste sectors is also needed to achieve medium-term goals. AB 32 mandated commercial recycling programs to be implemented by 2012, and jurisdictions throughout Los Angeles County are implementing new and enhanced commercial recycling programs.

In recent years, a greater emphasis has been placed on removing and recycling organics in the waste stream, principally through food waste programs in both the residential and commercial sectors. Food waste can be composted, often on a commingled basis with other organics, such as yard waste, to produce a usable and saleable compost material for direct transport to processing and compost facilities. An increasing number of mixed organics compost facilities have been permitted in recent years, and the trend is expected to continue. In addition, in the commercial food waste sector, programs have been implemented in various areas of the state to utilize commercial food waste in publicly owned treatment works digesters to produce energy. It is anticipated that these efforts will continue to grow in the coming years.

One of the primary challenges for food waste programs throughout the state is public acceptance and participation, because it requires a significant change in past practice and has thus encountered opposition in many areas. Public agencies and private companies implementing such programs are required to undertake significant outreach and engage in aggressive public education programs to seek greater participation in these programs. It is anticipated that these programs will continue to grow and become a staple of agency diversion programs, targeting this particular organics area of the waste stream.

Recycling

Recyclable material includes paper, glass, aluminum, copper, iron and other ferrous metals, cardboard, and some plastics. The most cost-effective recycling program is one that captures recyclables before refuse is deposited in the municipal waste stream.

Composting

The composting of green wastes as well as food wastes (organic wastes decompose biologically into a stable nutrient rich humus-like material) reduces the residential and commercial waste stream destined for landfills.

An organized collection system is the most effective way to achieve a high diversion rate. Residents separate their recyclables and garden wastes from their other household wastes. Markets for compost material are developing, including markets for mixed organics compost materials. The County's Source Reduction and Recycling Element targets green (compostable) waste for diversion to beneficial uses. It is anticipated that composting programs (both traditional green waste and mixed organics operations) would constitute a significant element of overall waste reduction.

Waste reduction can also occur at the household level. The County of Los Angeles has operated a successful Smart Gardening Program for well over a decade that encourages residents to compost in their backyards, while providing discount composting bins to residents.

The proposed expansion at CCL includes its continued composting operation, and also includes a mixed organics component to facilitate mixed organics composting and the ability to provide jurisdictions with food waste program diversion options. The compost or shredded green waste can be sold for use as a soil enhancement, used by public agencies and private parties for landscaping purposes, and used onsite as daily or final cover or to augment other materials used for daily cover.

Incineration

Another method of converting waste to energy involves the direct incineration of wastes. Incineration can reduce the waste volume by 80 to 95 percent and is the most effective method known for reducing refuse volumes. Incineration, or mass burn, is also highly controversial. In most instances, the ash that remains is hazardous and must be transported and disposed of as such. Particular concerns have also been raised about

possible health effects associated with the air emissions and the ash component of the residue. Because the Los Angeles area is in nonattainment for many air emissions, permitting agency approval and public acceptance of a process that could result in further air quality degradation is unlikely. Once air pollution control systems are available that can convincingly demonstrate that no negative effects would occur, this alternative may become a viable option.

18.4.2.4 Conversion Technologies

The term “conversion technologies” refers to a wide array of technologies capable of converting post-recycled or residual solid waste into useful products, green fuels, and renewable energy through non-combustion thermal, chemical, or biological processes. Conversion technologies may include mechanical processes when combined with a non-combustion thermal, chemical, or biological conversion process. In addition to the production of locally generated renewable energy and green fuels, the use of conversion technologies in Southern California could, if proven feasible on a large scale, effectively enhance recycling and beneficial use of waste, reduce pollution such as GHG emissions, and reduce dependence on landfilling and imported and domestic fossil fuels.

Examples of conversion technologies are as follows (summarized from City of Glendale, 2014).

Thermal Gasification. Thermal processes include gasification, pyrolysis, plasma arc, and various combinations of these technologies. These processes tend to be more expensive and complex than conventional WTE or anaerobic digestion processes. Select feedstock (more homogeneous than MSW) is usually required for optimal operation of these technologies, thereby necessitating significant pre-processing at new or existing MRFs. The primary difference between thermal conversion and conventional WTE technology is that thermal decomposition of the waste occurs with either no air or insufficient air for complete combustion, which results in cleaner air emissions. Thermal processes produce intermediate products which can either be burned as fuels or used to create fuels that are used elsewhere. Thermal processes are all rapid, reducing waste to residual in a matter of minutes or seconds, rather than years in a landfill. These technologies produce less operational emissions compared to landfills due to less operation of mobile equipment.

Gasification. Gasification is the thermal processing of waste (feedstock) using heat, pressure, and/or steam to convert materials directly into a gas. This alternative requires a relatively consistent influent feedstock material (mainly organic materials), thereby necessitating significant pre-processing of the waste stream at a MRF or a pre-processing facility associated with the WTE facility. There is limited operational history and success for this technology. There is currently no commercially operating facility in the U.S. using MSW as feedstock; however, Japan uses this technology with a feedstock comprised of MSW and auto shredder waste. One plasma arc facility is in operation in Ottawa, Canada. Residual materials such as char and tar, and slag need to be disposed. The residual slag may be used as road base or construction aggregate.

Pyrolysis. Pyrolysis is the thermal processing of waste using indirect heat in the absence of oxygen. This process can be used with a wide mix of organic materials (e.g. coal, wood, and organics). However, waste degradation is not as effective as with thermal oxidation, which results in some inorganic waste not being decomposed. There is a limited operational history and success using pyrolysis with mixed organics. There is also a limited history of treating the resulting syngas for use in energy conversion equipment. Residual char and liquids need to be disposed or further refined. It is not clear if this process is economical or if capacity can be met. A 150-TPD plant is reportedly being built in Green Bay, Wisconsin.

Anaerobic Digestion. Anaerobic digestion (AD) is the bacterial breakdown of organic materials in the absence of oxygen. Organisms gradually break down complex organic molecules into methane, carbon dioxide, hydrogen sulfide, and gaseous and solid residuals. This technology is predominantly applied to organic wastes (alone or with composting to biostabilize the process residue). Pre-processing of the feedstock at a MRF is needed to remove inorganic materials. Potential feedstocks are MSW-derived

organic materials, wastewater treatment biosolids, manure, and food waste. Self-contained systems can achieve complete decomposition in a matter of days. The residuals from this process include inorganics, non-degradable organics, and biomass. These residuals (which can reach 25% or higher) require disposal, typically at a landfill. The methane produced during the process can be burned, compressed, or liquefied for fuel. While some medium-sized facilities exist in Europe, it is not clear if such technology can be economical in Southern California. AD is less efficient at reducing organic materials than thermal processes. AD does not destroy plastic, and has limited efficiency in destroying chemical compounds in woody material.

Conversion technologies have been used to manage solid waste in Europe, Israel, Japan, and other countries in Asia, but are not yet in commercial operation in the United States.

Existing County Efforts to Evaluate and Promote Development of Conversion Technologies

As described previously, Los Angeles County residents and businesses generate approximately 21.5 million tons of materials per year, with approximately 60 percent being diverted through source reduction and recycling away from disposal. This results in over 8.6 million tons of trash left for disposal every year, a number that is expected to grow as a result of continued population and economic growth in the region. With the certainty that in-county landfill capacity will ultimately be diminished or exhausted in the long term, and will be substantially diminished in the short term, the County of Los Angeles recognizes the need to develop technically, economically, and environmentally feasible conversion alternatives to landfills within the county.

The Los Angeles County Board of Supervisors has designated LACDPW as the lead county agency advising the Los Angeles County Board of Supervisors on waste management issues and responsible for the County's compliance with AB 939 mandates. This includes the waste diversion mandate for the unincorporated areas, as well as countywide solid waste planning responsibilities, in concert with the cities and the Los Angeles County Integrated Management Task Force (Task Force).

As part of its continuing efforts to evaluate and promote the development of conversion technologies, the County incorporated into the land use permit for PHL a condition requiring the owner/operator of the landfill, LACSD, to provide up to \$100,000 in funding each year for the remainder of the landfill's lifespan to study conversion technologies; and requires LACSD to consider funding a pilot conversion technology facility, should a suitable technology be identified. The land use permit approved by the Los Angeles County Board of Supervisors also requested the Los Angeles County Solid Waste Management Committee/Task Force form the Alternative Technology Advisory Subcommittee (Subcommittee), a multi-stakeholder group whose mission is to thoroughly evaluate and promote the development of conversion technologies.

Continuing this model, the County adopted a land use permit for the Sunshine Canyon landfill, owned and operated by Browning-Ferris Industries, which included a condition for providing \$200,000 per year in funding for 10 years. This funding will continue the work of the Subcommittee, Task Force, and LACDPW in implementing recommendations and advancing the vision of the Board of Supervisors to work toward the eventual elimination of landfills as the primary disposal modality.

To further this goal in the near term, LACDPW is working with the Task Force and the Subcommittee to facilitate development of a fully operational conversion technology demonstration facility in Southern California. The goal of the County's project is to demonstrate technical, environmental, and economic benefits of conversion technologies through design, construction, and operation of a facility in Southern California to forge permitting and legislative pathways for conversion technologies and promote development of future projects.

In July 2006, the County contracted with Alternative Resources, Inc. (ARI) to further advance its efforts to facilitate development of a conversion technology demonstration facility (Phase II). Key Phase II services provided by the ARI team included:

- An independent evaluation and verification of the qualifications of selected technology suppliers and the capabilities of their conversion technologies

- An independent evaluation of candidate MRF/TS sites, to determine suitability for installation, integration, and operation of one of the technologies
- A review of permitting pathways
- Identification of funding opportunities and financing means
- Identification of potential county incentives (i.e., supporting benefits) to encourage facility development amongst potential project sponsors
- Negotiation activities to assist these parties in developing project teams and a demonstration project

Long-Term Development of Conversion Technologies

The County's phased future development program activities may include the following:

- Re-evaluating the conversion technologies marketplace to consider new and emerging developments and pursuing development of the most technically and environmentally effective technologies, focusing on identifying potential sites within Los Angeles County, including key potential sites identified in Phase II.
- Developing partnerships with local cities within Los Angeles County interested in developing conversion technology facilities within or adjacent to their borders.
- Facilitating development of commercial-scale conversion technology facilities designed to manage Los Angeles County's waste stream. These activities can occur concurrently with the continued development of demonstration projects.

Potential MRF/TS Sites Recommended for Phase II Analysis by the County of Los Angeles

The County's Phase I study recommended six MRF/TS facilities as preferred locations for development of a conversion technology demonstration facility. Early in the Phase II process (July 2006), the owner/operators of the six potential sites were contacted, and site visits were conducted to determine interest in continued participation in the County's demonstration project. Four of the original six sites expressed a willingness and ability to participate. Two of the sites dropped out: the Central Los Angeles Recycling Center and Transfer Station, because it is a potential site for the City of Los Angeles conversion technology project; and the proposed facility in Santa Clarita because of uncertainty regarding the approval of the entire industrial development that would have encompassed the MRF/TS. Late in the Phase II process, the Rainbow Disposal Company, Inc. MRF, was added to the project. The MRF/TS sites include:

- Del Norte Regional Recycling and Transfer Station (Oxnard)
- Perris MRF/TS Riverside County (Perris)
- Rainbow Disposal Company, Inc. MRF (1) Orange County (Huntington Beach)
- Robert A. Nelson Transfer Station (Unincorporated Riverside County)
- MRF Riverside County (Unincorporated)

Four sites were found to be technically and environmentally suitable for co-location of a conversion technology project: Del Norte Regional Recycling and Transfer Station (Oxnard); Robert A. Nelson Transfer Station and MRF (Unincorporated Riverside); Perris MRF/Transfer Station (Perris); and Rainbow Disposal Company, Inc. MRF (Huntington Beach). Community Recycling/Resource Recovery, Inc. MRF/TS in Los Angeles was limited by available space and is faced with an active local enforcement agency (LEA) cease and desist order that may pose a constriction for project development at this site. The Community Recycling site was not recommended for this project because of those constraints. However, Community Recycling has access to a larger site, which may be suitable for consideration in a future phase of Los Angeles County's project development activities (Phase III).

With only one exception, the MRF/TS sites have continued to express a willingness and ability to partner with a technology supplier and participate in Los Angeles County's conversion technology demonstration project. The Del Norte Regional Recycling and Transfer Station Ventura County in Oxnard has not yet committed to participate in the Los Angeles County's project. As the only publicly owned MRF/TS under consideration, the

Del Norte site requires a more formal and lengthier process for making a project commitment. In addition, the City of Oxnard has received and is evaluating a project offer that could result in development of the land adjacent to the MRF/TS, which was identified for location of a conversion technology facility. The future of Oxnard's participation in the County's project is uncertain and appears unlikely.

Status of Conversion Projects in Los Angeles County

On April 20, 2010, the Los Angeles County Board of Supervisors approved Memoranda of Understanding for three conversion technology demonstration projects and awarded a contract for consultant services for the demonstration and commercial phases of the Southern California Conversion Technology Demonstration project, which is intended to foster solid waste alternatives to landfills within the County of Los Angeles.

At that time, the Board also instructed the Director of Public Works, in coordination with appropriate stakeholders, to assess the feasibility of developing a conversion technology facility at one or more County landfills; to identify other potentially suitable sites within the County of Los Angeles, and to report back to the Board within 6 months.

In October 2010, Public Works submitted a preliminary siting assessment to the Board identifying potential project sites proposed by 11 municipalities and 9 private companies, and committed to providing the Board with a status report on the efforts every 6 months. Since that time, LACDPW has worked with interested stakeholders to evaluate additional possible project locations within the county.

On June 22, 2011, LACDPW released two Requests for Expressions of Interest (RFEI) to technology vendors and potential project financial partners. The RFEIs were widely distributed and LACDPW received several responses. Companies that meet the County's list of minimum criteria will be included in a County database that will be used by LACDPW and will be made available to public and private project developers, specifically those who have expressed interest in developing a project and submitted a site to Public Works for evaluation.

On September 25, 2012, the Los Angeles County Board of Supervisors approved a motion to work with key stakeholders to pursue and support the passage of legislation and regulations to encourage development of conversion technologies, including appropriate incentives for producing renewable energy, reducing landfill disposal, and producing low carbon fuels.

18.4.2.5 Feasibility of Conversion Technologies

Diversion Potential and Conversion Capability

The conversion technologies have the potential to achieve significant diversion of MRF residue and post-recycled MSW from landfill disposal, ranging upwards from approximately 87 percent by weight of the waste received, provided reliable markets can be identified and developed for secondary products. Conversion technologies operate in 28 countries with varying environmental rules and regulations, including: Australia, Europe, Japan, South Korea, South Africa, and the United States. However, it is unclear at this time whether such secondary markets can be successfully developed in the United States.

The technologies have the capability of recovering recyclables, converting waste into intermediate fuel products (e.g., biogas, syngas, steam, biodiesel), efficiently using the fuel products onsite for power generation, and producing secondary material products. Onsite power generation is currently the proposed alternative because of strong market demands for electricity, particularly from renewable energy sources.

Competitiveness of Estimated Tipping Fees

LACDPW reports that tipping fees needed to support a conversion technology project range from approximately \$50 to \$70 per ton. The rate may actually be higher; a precise or realistic figure is not actually known. While these estimated tipping fees may be competitive with the future tipping fees associated with rail haul and landfill disposal, they are significantly greater than current waste disposal costs in Los Angeles County. To support financing and successful project development and operation, there may be a need to "bridge" this economic gap, if any, until such time as market waste disposal fees equal those for conversion

technologies. Many alternatives could be considered to help meet this need, including one or more of the following:

- Funding provided by LACSD, consistent with the conditions of the PHL CUP
- Funding provided by Browning-Ferris Industries, consistent with the conditions of the Sunshine Canyon CUP
- Funding provided by the cities in Los Angeles County and the County itself
- Development of public waste supply agreement (or private agreement with public “back stop”) with supporting tip fees
- Increasing the amount of the project financing to provide surplus funds to “subsidize” initial tip fees being paid
- Instituting a ramped tipping fee (i.e., a structured annual increase that is kept in place until the prices charged cover the cost incurred, similar to the funding subsidy formulated by LACSD for the Waste by Rail Project)
- Instituting a “green fee” to be paid by MRF/TS customers for waste processed at the conversion technology facility
- Eliminating the solid waste management fee (currently \$0.86 per ton) for waste originating in Los Angeles County going to the conversion technology facility, to provide a reduced tip fee for waste delivered to the conversion technology facility
- Increasing the solid waste management fee (currently \$0.86 per ton) imposed on each ton of solid waste being disposed to provide a dedicated funding source for promoting development of conversion facilities
- Providing tax incentives that may result in lower facility construction or operating costs
- Successful acquisition of state and federal grants to augment other funds as discussed above

The actual level of public and private support needed and alternatives to address needed support would require evaluation in the next step of this process, when firm, competitive offers from the project developers are made, and proposed tip fees and project-specific market conditions are known.

Feasibility of Development

Development hurdles for conversion technologies in California include development, land acquisition, and capital/labor costs, especially when compared to the current, relatively more efficient and thus inexpensive cost of landfill disposal; the lack of a clear permitting and regulatory pathway in California; a lack of diversion credit, renewable energy credit, or other incentives for the development of emerging technologies; and potential misconceptions regarding the performance of these technologies. There is also an active network of well-funded organized opposition to the development of conversion facilities, which has fought and blocked development of facilities throughout the state. One of the common issues in opposition campaigns to development of conversion technologies is characterizing the conversion modality (i.e., plasma arc) as “incineration” to develop a public opposition to employment of facilities in local areas.

18.4.2.6 Environmental Analysis

In the interest of providing a discussion of potential impacts associated with implementation of Alternative B, impacts associated with an AD facility are summarized from the Statewide Anaerobic Digester Facilities for the Treatment of Municipal Organic Solid Waste Draft Program EIR (CalRecycle, 2011) in Table 18-3.

TABLE 18-3
Alternative B: Waste Reduction and Alternative Technologies
Potential Environmental Impacts

Environmental Resource Area	Alternative B: Waste Reduction and Alternative Technologies
Land Use	AD facilities associated with Alternative B would likely be co-located at existing or new permitted solid waste facilities or as stand-alone AD facilities in areas zoned for industrial or solid waste handling activities. Therefore impacts to land use are considered minimal.
Geology and Hydrogeology	Under Alternative B, impacts related to geology and hydrology would be similar to or less than the Proposed Project. As with the Proposed Project, it is assumed that the AD facilities would be constructed to meet the minimum requirements of Section 20164(a) of Title 27 CCR. Similar to the Proposed Project, potential geotechnical constraints could be mitigated through proper engineering design.
Surface Water Drainage	Under Alternative B, impacts related to surface water drainage and water quality would be similar to or less than the Proposed Project. This alternative would involve constructing a new facility involving grading and excavation activity and alteration of topography and drainage patterns. However, with mitigation, hydrology and water quality impacts to surface and groundwater could be minimized to a less-than-significant level.
Water Quality	See Surface Water Drainage above.
Biological Resources	Alternative B would likely result in fewer impacts to biological resources compared to the Proposed Project, given the smaller size required for an AD facility. However, the magnitude of impacts would depend on the size, type, and location of the new facility.
Cultural and Paleontological Resources	Alternative B would likely result in fewer impacts to cultural resources compared to the Proposed Project, given the smaller size required for an AD facility. However, the magnitude of impacts would depend on the size, type, and location of the new facility.
Traffic and Transportation	Alternative B would likely result in a fewer project-related trips than the Proposed Project, in large part because an AD facility would handle much less solid waste than the Proposed Project. Impacts to transportation and traffic from Alternative B would require mitigation to minimize potentially significant impacts and would therefore likely be similar to the Proposed Project.
Air Quality	<p>Under Alternative B, construction related emissions would arise from a variety of activities, including: grading, excavation, road construction, and other earth moving activities; travel by construction equipment and employee vehicles; exhaust from construction equipment; architectural coatings; and asphalt paving. As with the Proposed Project, impacts would likely occur within the South Coast Air Basin. Emissions associated with operations would depend on several factors, such as the size and type of AD facility, equipment needs, increased traffic, and post processing of the biogas. Operational sources of fugitive dust would primarily be processing equipment and truck movement over paved and unpaved surfaces. Although there will be emissions associated with these sources at AD facilities, the operation of these facilities would divert organics out of landfills. The AD facilities could also generate biogas to replace fossil fuels for electricity production or for vehicle transportation. AD facilities have the potential to significantly contribute positively towards the state's Global Warming Solutions Act goals. These technologies achieve significant diversion from landfill disposal and convert organic waste material into renewable energy, fuels and other products, potentially resulting in a net reduction in GHG emissions.</p> <p>The net generation of emissions can be reduced when considering the life-cycle impact of this technology. By design, an AD facility would offset emissions from other sources, including the transportation of waste to remote disposal that is no longer necessary, as well as the combustion of fossil fuels offset by the generation of renewable energy in the form of electricity or green fuels. Co-location of AD facilities with MRFs maximizes this transportation reduction of residual solid waste. When factoring in diversion of materials from disposal as well as offsets from transportation and energy production, AD facilities are likely to reduce net emissions.</p>
Greenhouse Gas Emissions and Climate Change	See Air Quality above.

TABLE 18-3

**Alternative B: Waste Reduction and Alternative Technologies
Potential Environmental Impacts**

Environmental Resource Area	Alternative B: Waste Reduction and Alternative Technologies
Noise	Alternative B has the potential to impact noise sensitive receptors, depending on where the facility is located. However, AD facilities associated with Alternative B would likely be co-located at existing or new permitted solid waste facilities or as stand-alone AD facilities in areas zoned for industrial or solid waste handling activities. Therefore, the noise impact is assumed to be similar to the Proposed Project, and less than significant.
Public Services and Utilities	Similar to the Proposed Project, Alternative B would not create a significant new demand for public services, including law enforcement, fire protection, or educational services. For this reason, Alternative B would result in a less-than-significant impact to public services. Alternative B would operate using similar infrastructure as the Proposed including water, wastewater, and electrical. However, new infrastructure would be required as part of the development of an AD facility. This could result in impacts associated with the construction of new infrastructure that would be greater than that of the Proposed Project. However, it is assumed this types of infrastructure would be part of a project plan submitted for local site plan review and would be constructed to the standards of the applicable local jurisdiction which would reduce impacts to a less-than-significant level.
Visual Resources	Alternative B has the potential for landform alterations, depending on where the facility is located. However, AD facilities associated with Alternative B would likely be co-located at existing or new permitted solid waste facilities or as stand-alone AD facilities in areas zoned for industrial or solid waste handling activities. Therefore, impacts to visual resources are assumed to be similar to the Proposed Project, and less than significant.
Environmental Justice and Socioeconomics	Alternative B has the potential for impacts associated with environmental justice and socioeconomics, depending on where the facility is located. However, AD facilities associated with Alternative B would likely be co-located at existing or new permitted solid waste facilities or as stand-alone AD facilities in areas zoned for industrial or solid waste handling activities. Therefore, impacts associated with environmental justice and socioeconomics are assumed to be similar to the Proposed Project, and less than significant.
Meet Project Objectives?	No
Reduce Significant and Unavoidable Impacts?	No

18.4.2.7 Waste Reduction and Alternative Technologies Conclusion

The Waste Reduction and Alternative Technologies Alternative is not considered to be a feasible alternative to the Proposed Project because it alone cannot completely accomplish the primary purposes and objectives of the Proposed Project. This conclusion is based on many of the same reasons as previously described for Alternative A, and includes the following:

- Alternative waste reduction technologies will be employed as required by AB 939 and County policy; however, their implementation (alone or in combination) does not completely offset the ultimate need for the expansion of CCL or the expansion of other landfill facilities. The LACDPW analysis of nine alternative scenarios in its assessment of landfill capacity in the 2012 Annual Report demonstrates that even with an assumed optimistic and aggressive use of conversion technologies with increased diversion to 75 percent, expanded landfill capacity is necessary in Los Angeles County to avoid capacity shortfalls.
- Without additional landfill capacity, CCL would not maximize the value of the operations or afford the County of Los Angeles the opportunity to use CCL's location as a potential expansion site to develop needed landfill disposal capacity.
- The positive environmental benefits of conversion technologies do not eliminate the need for additional landfill capacity. Alternative waste reduction technologies are, however, capable of extending the operational capacity of landfills and are complementary activities to traditional MSW disposal.

- The two existing WTE facilities within the greater Los Angeles region have insufficient capacity to handle the existing 6,000 tpd for the existing landfill, and cannot handle the 12,000 tpd proposed for the Proposed Project. Thus, conversion technology alternatives would necessitate construction of large, significant new WTE facility in the region capable of handling 10,000 tpd or more. The feasibility of siting such a facility is highly uncertain, as only three such facilities have been completed in California and none in the last 25 years. Consequently, this alternative is not feasible as an alternative to the Proposed Project.

18.4.3 Alternative C: Alternative New Site in Northern Los Angeles County

The Proposed Project is the proposed expansion of an existing landfill on property owned by the applicant, a private entity, and the concept of a new landfill to be sited in an alternative location would not meet the most basic objectives of the Proposed Project; and is otherwise not feasible because the applicant has no means of eminent domain to acquire the lands of others for its project purposes. While eminent domain is not available to a private applicant, it is possible to acquire lands through customary commercial dealings.

CEQA does not require the study of an alternative location to a project proposed by a private applicant. This DEIR, however, evaluates an alternative offsite location as potentially feasible, based on the Proposed Project's main objective to develop significant new disposal capacity within northern Los Angeles County.

18.4.3.1 Feasibility

For an alternative location for the Proposed Project to be considered feasible, the site would have to be suitable for landfill development, and meet the detailed siting and design criteria established in Title 27 CCR. These criteria would preclude any property that would not meet the Title 27 landfill siting requirements. In general, the State of California siting regulations (which are based on the federal Subtitle D regulations) restrict landfills from locating in areas near runways, within 100-year floodplains, in unstable terrain, in wetlands, or in active fault zones. Site feasibility is further determined by the landfill operator's ability to acquire, control, or otherwise have access to suitable properties. The applicant does not own or control properties in the vicinity of the Proposed Project location suitable for landfill development—the applicant does not own any other property in the general vicinity of the CCL facility.

The specific requirements for development of a landfill in the northern area of Los Angeles include:

- Identifying available lands which are of sufficient size—at least 500 acres—to accommodate a landfill disposal facility, including ancillary functions such as access roads, waste receiving facilities, gatehouse, scales, LFG management and landfill gas-to-energy facilities, soil stockpile areas, and potential borrow areas from which to utilize soils for operations and closure purposes. A section of land (640 acres) would generally be a reasonably-sized area to consider for a landfill site which could accommodate CCL operations. The primary screening level criteria for this element of the alternative new landfill is the application of federal and state MSW landfill siting criteria, first established in the federal Subtitle D regulations promulgated in 1991 and effective on October 9, 1993 (*40 Code of Federal Regulations Part 268*). The California Environmental Protection Agency (CalEPA) has an approved state implementation program for administering the Subtitle D requirements within California, found in Title 27 CCR, Chapter 3. The siting criteria include that new or expanded landfills will be located where site characteristics provide adequate separation between nonhazardous solid wastes and waters of the state; all new landfills must be sited, designed, constructed, and operated to ensure that wastes will be a minimum of 5 feet above the highest anticipated elevation of underlying groundwater; new landfills must be located where soil characteristics, distance from waste to groundwater, will ensure no impairment of beneficial uses of surface water or of groundwater; new landfills and lateral expansions of landfills that are located within 10,000 feet of any airport runway end used by turbojet aircraft, or within 5,000 feet of any airport runway end used by only piston-type aircraft, must demonstrate that the units are designed and operated so that the landfill does not pose a bird hazard to aircraft; new landfills and expansions of existing landfills shall not be located on a known Holocene fault; new landfills and expansions of existing landfills shall not be located in areas of rapid geologic change.

- Identifying specific sites within northern Los Angeles County based on suitability of access, ability to provide electrical power, and other infrastructure needs, including the water supply. Transportation infrastructure considerations and challenges must be addressed for a new site to be viable.
- Conducting hydraulic and hydrologic modeling of the proposed landfill site and the adjacent watershed to determine a landfill project's potential to exacerbate existing flooding problems by increasing the extent, depth, and duration of surface water inundation. Any such project-related flooding impacts would require the development and operation of flood control facilities to protect onsite and adjacent lands and properties.
- Undertaking detailed site-specific geologic and hydrogeologic investigations on the proposed site once it is identified and placed under option or other ownership interest for purposes of performing due diligence studies on the suitability of the parcel(s) for solid waste landfill purposes. The due diligence would include geologic boring and trenching to determine the suitability of soils, both for construction purposes but also with respect to the overall stability of soils and slopes in and around the parcel(s); establishment of a network of groundwater monitoring wells, monitored for at least 4 to 6 quarters, to determine water quality and hydrogeologic characteristics of the site, depth and occurrence of groundwater; and the surface water features and hydrology of the site.
- Undertaking field-level reconnaissance and surveys for threatened, listed, and endangered plant and animal species under the state and federal endangered species acts. As with any potential site, there is a potential for several species and habitat areas to be located in a given area. Detailed site-specific investigations for species and habitat will be necessary. In addition, the reconnaissance and surveys would also include evaluation of critical and other protected habitat for threatened and endangered species.
- Filing of an application for a designation in the CIWMP and General Plan, together with any related zoning requirements, and preparation of at least a program-level EIR for purposes of complying with CEQA for these discretionary decisions by the County of Los Angeles. The designation in the CIWMP requires a submission of the known details of the proposed facility to the Task Force for review and comment by the Task Force. (See, *California Public Resources Code* Section 50001). An applicant may wish to proceed with a CIWMP designation and General Plan Amendment to ensure that the identified site, after the due diligence period of over a year, is acceptable as a designated site in CIWMP and the General Plan. The public may also posit initiatives under the initiative power to either designate or preclude sites from being considered in the CIWMP and the General Plan. The process of securing the site within the CIWMP and the General Plan, together with the required CEQA review at a program-level EIR, can take between 24 to 36 months even under favorable conditions, without protracted opposition, legal challenges to various stages of the process, and potentially EIR-related litigation. There are currently no potential landfill sites in northern Los Angeles County identified in the CIWMP.
- Applying for a CUP from Los Angeles County to establish a solid waste landfill facility. The County would be the lead agency under CEQA, and as such, must require preparation of a project-level EIR, just as is the current case with the Proposed Project DEIR under review, to evaluate the proposed action. The CUP and EIR process can take from 4 to 6 years, or longer, as has been documented in other areas of the state addressing new or expanded landfill applications. As an example, the applicant for a lateral expansion of the Potrero Hills Landfill in Solano County has been in the CUP and EIR process for over 12 years, and the site has not received all final required permits at this writing due to the pendency of litigation. Mandamus litigation challenging the final permit for the Potrero Hills project was decided in favor of the applicant in May, 2014 by the state court of appeal, but the judgment is not yet final at this writing and is subject to potential further appeals. The Eagle Mountain Landfill was initially commenced in 1989, received final state permits in 1999, but was set back by continued litigation challenging a BLM land exchange and land transfer to the applicant. The Eagle Mountain project was in the permitting process with associated litigation for over 20 years and the project is now no longer viable. Its sponsor entered bankruptcy in 2011. Every site and circumstance is unique, but for planning and discussion purposes, a 4- to 6-year timeframe is likely highly optimistic and potentially not realistic. The EIR may be challenged in court once certified as

adequate and in compliance with CEQA, by other permitting agencies, as discussed below. Experience in California permitting and environmental review indicates that the 4- to 6-year period may be considerably longer if there is litigation activity challenging the EIR and the lead agency approvals.

- Preparing a joint technical document (JTD), which is a multi-disciplinary technical document which serves as a permit application and background technical document for several agency permits. The JTD describes the waste disposal plan, the access routes, and monitoring plans, together with descriptions of the characteristics of the site in all technical aspects including geology, hydrogeology, hydrology, air quality, water quality, and site suitability. The JTD also demonstrates that the landfill site meets all of the siting and design/construction/operational standards, prescriptive and performance, embodied in the applicable regulations of the South Coast Air Quality Management District (SCAQMD), the Los Angeles Regional Water Quality Control Board (RWQCB), the LEA, and CalRecycle.
- Applying for and obtaining a waste discharge requirements (WDR) permit from RWQCB.
- Applying for and obtaining a solid waste facilities permit (SWFP) from the LEA, to also be concurred in by CalRecycle.
- Applying for and obtaining an authority to construct and permit to operate from the SCAQMD.
- Applying for and obtaining other permits, which may be required, including without limitation, a United States Corps of Engineers (USACE) Section 404 permit; Federal Endangered Species Act permit; Clean Water Act Section 401 certification; and Streambed Alteration Agreement from the California Department of Fish and Wildlife.

Experience indicates that the process of searching for suitable sites, negotiating options or purchase agreements with one or more landowners, and completing due diligence actions required will take a minimum of 24 to 48 months, under favorable conditions.

The time for completing the JTD and obtaining all required environmental agency permits to construct and operate a new landfill would likely take as long as 1 to 2 additional year(s) after the project-level EIR is certified by the lead agency and a land use/CUP is obtained, assuming no litigation that delays the certification of the EIR or delays the obtaining of the permits from various agencies. The JTD is the essential prerequisite to obtaining WDRs and a SWFP. History involving landfill land use applications throughout the state demonstrates that litigation is a highly probable and realistic obstacle and occurs in most landfill permitting proceedings. Each of the agencies has an independent statutory and regulatory basis for issuance of the permits involved, creating an independent opportunity for litigation challenges.

The California statutory and regulatory requirements for development of new landfills embodies a process which results in the planning and permitting for a new landfill easily taking up to 12 years or more to complete. The history of permitting landfills in California in the last 25 years demonstrates that few are actually approved, let alone built and operated. Since 1985, there have been five new landfills permitted in California on non-tribal lands (Potrero Hills Landfill in Solano County [1986]; Frank R. Bowerman Landfill in Orange County [1991]; Keller Canyon Landfill in Contra Costa County [1992]; Mesquite Regional Landfill in Imperial County [1999]; and Eagle Mountain Landfill in Riverside County [1999]). Of those five, three have been built (Potrero, Bowerman, and Keller Canyon). Mesquite, which had been scheduled to be placed into service to facilitate waste-by-rail from Los Angeles County, is not being developed at this time. The fifth site, Eagle Mountain Landfill, has been blocked by litigation after nearly 20 years in the permitting process.

LACSD owns Mesquite, located in the southeastern California desert. Bowerman Landfill is in Orange County. Potrero Hills and Keller Canyon are the only new Northern California sites approved and constructed in the last 30 years. The Eagle Mountain Landfill project was started in 1989. Keller Canyon was started in 1985 as a proposed "Central Landfill" in Contra Costa County, southwest of the City of Pittsburg. The Keller Canyon Project took 7 years to complete and open, and was "fast-tracked" as a result of the then-state California Integrated Waste Management Board having issued a compliance order to Contra Costa County requiring the

development of a new landfill to replace an existing landfill. The expansion application for Potrero Hills Landfill was filed in March 2002, over 11 years ago.

Experience locally and throughout the state demonstrates that siting and permitting a solid waste landfill is a time consuming, expensive proposition that can easily take between 10 to 12 years or more, without guarantee of a successful or even partially successful result.

18.4.3.2 Environmental Analysis

Table 18-4 provides an analysis of the potential environmental impacts of constructing an alternative new site in northern Los Angeles County.

TABLE 18-4

**Alternative C: Alternative New Site in Northern Los Angeles County
Potential Environmental Impacts**

Environmental Resource Area	Alternative C: Alternative New Site in Northern Los Angeles County
Land Use	The existing project site is designated as a solid waste facility in the County's General Plan. In comparison, Alternative C would likely require an amendment to the Los Angeles County General Plan for the parcel(s) in which the landfill would be located, and would also require an amendment to the County's Siting Element. This inconsistency is considered a significant impact and greater in magnitude than that of the Proposed Project.
Geology and Hydrogeology	The impacts related to geology and soil resources would likely be similar for Alternative C as compared to the Proposed Project. As with the Proposed Project, it is assumed that the new landfill would be constructed to meet the minimum requirements of Section 20164(a) of Title 27 CCR. Similar to the Proposed Project, potential geotechnical constraints could be mitigated through proper engineering design.
Surface Water Drainage	Under Alternative C, impacts related to surface water drainage and water quality would be greater than the Proposed Project. This alternative would involve constructing a new landfill, involving significant grading and excavation activity and alteration of topography and drainage patterns. Alternative C would require the preparation of an Industrial SWPPP to minimize erosion and other water quality impacts. With mitigation, hydrology and water quality impacts to surface and groundwater could be minimized to a less-than-significant level.
Water Quality	See Surface Water Drainage above.
Biological Resources	Alternative C would likely result in greater impacts to biological resources compared to the Proposed Project. This alternative assumes that a new landfill would be constructed at an alternative location, resulting in a significant amount of new land disturbance compared to the Proposed Project. The magnitude of impacts would depend on the location of the new landfill.
Cultural and Paleontological Resources	Alternative C would likely result in greater impacts to cultural and paleontological resources compared to the Proposed Project. This alternative assumes that a new landfill would be constructed at an alternative location, resulting in a significant amount of new land disturbance compared to the Proposed Project. The magnitude of impacts would depend on the location of the new landfill.
Traffic and Transportation	Alternative C would likely result in a greater number of project-related trips than the Proposed Project because it would be a new facility, as compared to an expansion of an existing operation. However, the impacts to transportation and traffic from Alternative C would require mitigation to minimize potentially significant impacts and would therefore likely be similar to the Proposed Project.
Air Quality	Under this alternative, the same operational characteristics are assumed for the Proposed Project; however, if the landfill were constructed outside of the South Coast Air Basin, Alternative C would avoid the significant air quality impact associated with the Proposed Project. However, project-related mobile source emissions would likely be greater than the Proposed Project as a result of the increased distances for haul truck trips. In this context, this alternative has the potential to generally increase air emissions as a result of new construction and longer travel distances. Furthermore, if Alternative C were constructed within the South Coast Air Basin, the project would result in a significant air quality impact similar to the Proposed Project.

TABLE 18-4
Alternative C: Alternative New Site in Northern Los Angeles County
Potential Environmental Impacts

Environmental Resource Area	Alternative C: Alternative New Site in Northern Los Angeles County
Greenhouse Gas Emissions and Climate Change	Under Alternative C, the additional vehicle miles from the transport of the waste to the other landfills would result in additional GHG emissions from mobile sources. The impacts to global climate change from Alternative C would likely be greater than those of the Proposed Project, and are potentially significant.
Noise	Alternative C has the potential to impact noise sensitive receptors, depending on where the facility is located. It is assumed that the landfill would be located in a relatively remote area so as to avoid nuisance issues associated with potential sensitive receptors; therefore, the noise impact is assumed to be similar to the Proposed Project, and less than significant.
Public Services and Utilities	Similar to the Proposed Project, Alternative C would not create a significant new demand for public services, including law enforcement, fire protection, or educational services. For this reason, Alternative C would result in a less-than-significant impact to public services. Alternative C would operate using similar infrastructure as the Proposed Project that supports the landfill operation, including water, wastewater, and electrical. However, new infrastructure would be required as part of the development of a new landfill. This could result in impacts associated with the construction of new infrastructure that would be greater than that of the Proposed Project.
Visual Resources	Development and operation of a new landfill at an alternative location would likely result in greater visual impacts than the Proposed Project. In contrast to the Proposed Project, where the existing landfill is an established and accepted part of the landscape, Alternative C would result in entirely new land disturbance, which would likely significantly alter the visual landscape in an area where currently no landfill exists. Additionally, depending on the specific site location more visual disturbance could occur associated with infrastructure improvements that may be necessary to serve the new landfill, such as roadways and utilities. Alternative C would also introduce additional nighttime lighting likely where none currently exists. The impacts to visual resources from Alternative C would be greater than those of the Proposed Project.
Environmental Justice and Socioeconomics	Alternative C has the potential to result in environmental justice and socioeconomics impacts, depending on where the facility is located. It is assumed that the landfill would be located in a relatively remote area so as to avoid environmental justice and socioeconomics impacts. Therefore, the impact is assumed to be similar to the Proposed Project, and less than significant.
Meet Project Objectives?	No
Reduce Significant and Unavoidable Impacts?	No

18.4.3.3 Alternative New Site Conclusion

The Alternative New Site in Northern Los Angeles County is not considered to be a feasible alternative to the Proposed Project because it neither accomplishes the primary purposes and objectives of the Proposed Project nor avoids or substantially lessens the significant impacts associated with the Proposed Project, based on the following considerations:

- Alternative C would take 10 to 15 years to ultimately permit and develop, but there is no certainty that such a site would be approved and assured waste disposal capacity is required now and in the foreseeable future.
- Alternative C would not achieve most of the basic project objectives, such as expanding CCL with additional capacity and resource recovery operations and maximizing the value of the operations.
- Alternative C would not provide cost-effective disposal capacity through continued operation and development of the existing CCL facility; nor prevent premature closure of the landfill with underutilized remaining permitted airspace capacity.

- Alternative C would not continue to provide landfill waste diversion programs that are relied upon by many local cities and communities in achieving state-mandated goals and
- Alternative C would result in potentially more environmental impacts associated with constructing an entirely new facility, including potential impacts to land use, biological resources, cultural resources, air quality, and greenhouse gas emissions.

18.5 Comparison of Alternatives

None of the project alternatives would both meet most of the Proposed Project objectives and avoid, or substantially lessen, the significant effects of the Proposed Project as required by Section 15126(d) of the CEQA guidelines. It can be concluded that only the No Project Alternative would avoid the landform alteration effects of the Proposed Project. However, the No Project Alternative shifts daily operational impacts of landfilling operations to other sites, and recognizes that additional capacity has to be created in the system to handle the waste from CCL. In addition, the transportation impacts and associated GHG impacts of transportation on one or more distant landfills, have to be considered as significant impacts of the No Project Alternative. The No Project Alternative in effect defeats the important objectives of the Proposed Project, the development of substantial additional disposal capacity to serve the region's and Los Angeles County's needs.

The Waste Reduction and Alternative Technologies Alternative provides several worthwhile and important elements of source reduction and diversion to try to reduce the overall contribution to the waste stream, as well as providing alternative methods of disposal. While the concepts are valued, not all have been demonstrated to be feasible for a variety of reasons. In the context of Los Angeles County, which is projected to see an increase of 56 percent in landfill capacity demand in spite of aggressive recycling and source reduction programs, this alternative cannot be considered as a feasible means to eliminate the need for the Proposed Project.

The development of a new landfill in the northern Los Angeles County area has several important steps which must be undertaken, that even under the most favorable conditions as noted above will take on the order of 12 years or longer. Thus, although an offsite new landfill alternative may appear to some to be an attractive alternative, the actual process of locating, identifying, and ultimately permitting such a project is a very expensive, time-consuming process that cannot be achieved within the critical timeframe necessary for development of additional landfill disposal capacity, the primary objective of the Proposed Project. As such, a new site in northern Los Angeles County is simply not a feasible alternative to the Proposed Project even under the most favorable circumstances.

18.6 Environmentally Superior Alternative

From among the alternatives evaluated, CEQA requires that this DEIR identify the environmentally superior alternative. Based on the discussion of the various alternatives, the environmentally superior alternative is Alternative A, the No Project Alternative. The No Project Alternative involves no construction, and operation would continue according to existing conditions until site closure between 2015 and 2019. The No Project Alternative would not involve any development or the disturbance of resources, unlike Alternatives B and C. Therefore, the No Project Alternative would be the Environmentally Superior Alternative, although it would not achieve the project objectives.

The State CEQA Guidelines Section 15126.6(e)(2) states, "If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." The potential impacts of implementing Alternatives B and C would depend on the location, size, and type of facility constructed. However, it anticipated that Alternative B would have lower overall adverse environmental effects compared to Alternative C. *The Statewide Anaerobic Digester Facilities for the Treatment of Municipal Organic Solid Waste Draft Program Environmental Impact Report* (CalRecycle, 2011) determined that all of the potential environmental impacts from construction of an AD facility could be mitigated to a less-than significant level. The Preliminary EIR also noted that the development of AD facilities

would have substantial benefits in regards to diverting organic material from landfills and reducing greenhouse gas emissions in comparison to existing practices. Alternative C involves the construction of an entirely new facility, which would result in potentially more environmental impacts including potential impacts to land use, biological resources, cultural resources, air quality, and greenhouse gas emissions.