

Initial Study/ Mitigated Negative Declaration

Former Cogen Landfill Gas Extraction System and Monitoring Plan Project

**City of Monterey Park and
County of Los Angeles, California
Project No. C.P. 87188 – SPECS 6984**

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January 2017



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EXECUTIVE SUMMARY

The California Environmental Quality Act (CEQA) requires that public agencies determine whether a discretionary project may have a significant effect of the environment and identification of revisions to the project that would either avoid these effects or reduce them to less than significant (Section 21064.5 and Sections 21080(a),(c) of the *California Public Resources Code*). An Initial Study/Mitigated Negative Declaration (IS/MND) is a public document designed to provide the public, responsible/trustee agencies, and other local and State governmental agencies with an analysis of the potentially significant environmental effects of a project's implementation (Section 21080(c) of the *California Public Resources Code*). This IS/MND has been prepared in accordance with CEQA and the State CEQA Guidelines for the Former Cogen Landfill Gas Extraction System and Monitoring Plan Project (Project).

The County of Los Angeles (County), as lead agency, has authorized the preparation of this IS/MND pursuant to CEQA and the State CEQA Guidelines. The IS/MND indicates that, while the Project would have potentially significant environmental impacts, modifications and/or mitigation measures have been incorporated into the Project to reduce its adverse impacts to levels considered less than significant.

This Executive Summary presents a brief overview of the Project; a summary of the potentially significant environmental effects of the Project; the regulatory requirements applicable to the Project; and the recommended mitigation program that would reduce potentially significant impacts to a less than significant level (Section 21081.6(a)(1) of the *California Public Resources Code*; Sections 15074(d) and 15097 of the State CEQA Guidelines). The reader is referred to the full text of this IS/MND and the technical appendices for a complete description and analysis of the potentially significant environmental impacts of the Project.

ORGANIZATION OF THE INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

The remainder of the IS/MND is organized into the following sections:

Section 1, Introduction: This section provides an introduction to the purpose of an IS/MND and the CEQA process; it also provides an outline of the IS/MND organization.

Section 2, Environmental Setting: This section provides a description of the Project's location, existing environmental setting, and the background and need for the Project.

Section 3, Project Description: This section discusses Project components; construction schedule and estimated equipment needs; ongoing operational and maintenance needs; and required Project-related approvals.

Section 4, Environmental Checklist Form: The completed CEQA checklist form provides an overview of the potentially significant impacts that may result from Project implementation. The environmental checklist form also includes "mandatory findings of significance", in accordance with CEQA requirements. This section contains the analysis of environmental impacts identified in the environmental checklist and identifies mitigation measures to eliminate potentially significant impacts or to reduce them to a less than significant level.

Section 5, Document Preparers and Contributors: This section includes a list of those persons who participated in writing this document.

Section 6, References: This section identifies the references used in preparation of the IS/MND.

PROJECT LOCATION

The Project site includes three separate locations, including a County of Los Angeles-owned, 4.6-acre portion of the approximate 40-acre former Cogen Landfill, located within the westernmost portion of the City of Monterey Park (City), and two discrete monitoring well locations, located within the unincorporated County community of City Terrace. In addition, the Project may require trenching to connect on-site electrical lines to an off-site utility pole located in the parking lot area of the County-owned Sybil Brand Institute. The City of Los Angeles community of University Hills is located approximately ½ mile to the north of the Project site beyond Interstate (I) 10; and the City of Alhambra is located approximately ¾ mile to the northeast of the Project site beyond I-710.

PROJECT OVERVIEW

The Project involves the (1) installation and operation of an LFG Extraction System that would extract and treat LFG from the former Cogen Landfill, (2) the installation of two new LFG monitoring wells, and (3) subsequent monitoring of LFG emissions from the Project site at six well locations (two new and four existing) and at surface locations. The County is a minority property owner of the landfill, having ownership of approximately 12 percent of the former facility. The purpose of the Project is to reduce the off-site migration of LFG from the approximate 4.6-acre, County-owned portion of the former landfill, and ensure that LFG concentrations surrounding this portion of the landfill do not exceed acceptable regulatory levels.

LFG Extraction System

Within the County-owned landfill area, the LFG Extraction System would be constructed within an approximate 0.7-acre footprint, which is the maximum area within which ground disturbance or other physical changes to the environment may occur during installation. The LFG Extraction System design is comprised of a media bed treatment system, situated on a 20-foot by 10-foot concrete pad, that is connected by piping to up to 5 extraction wells.

Additionally, there is the potential for an off-site electrical connection, if the Project is required to connect to the existing utility pole to the east across Sheriff Road rather than the on-site utility pole. Southern California Edison (SCE) would determine the location and engineering requirements of the electricity connection, which is anticipated to occur in the first two weeks of the construction period.

The LFG Extraction System would be constructed in one phase, estimated to extend from November 2017 through June 2018, or a construction period of approximately eight months, including one month to allow for unforeseen delays or other contingencies. Upon completion, maintenance activities by County staff would occur once per week for approximately the first two months, with long-term maintenance activities requiring one to two visits per month.

LFG Monitoring Well Installation and Monitoring Plan

Prior to the installation of the LFG Extraction System on the landfill, two LFG monitoring wells would be installed at the top of the approximate 75-foot-high, easterly-descending slope within the northwestern portion of the Project site pursuant to the *Revised Landfill Gas Monitoring Work Plan, County-Owned Portion of the Cogen Landfill, Monterey Park, California* (Monitoring Plan)(SWIS No. 19-AA-0581). The two new well locations would be situated approximately 375 feet apart. Installation of the new monitoring wells would require one day for each well and is anticipated to occur in April 2017.

The County would then monitor the LFG concentrations on a monthly basis at these two new well locations, four existing wells locations at the western and northern portions of the County-owned landfill area, and at surface locations within the northern portion of the County-owned landfill area, consistent with the Monitoring Plan approved in December 2015 by the local enforcement agency (LEA), the Los Angeles County Department of Public Health. A report of the monthly monitoring results would be provided to the LEA within two weeks of the monitoring event. The Monitoring Plan would continue to be implemented after LFG Extraction System installation, and the results used as feedback for its ongoing operation.

SUMMARY OF INITIAL STUDY FINDINGS

The Environmental Checklist Form of this IS/MND evaluates the potentially significant environmental impacts associated with Project implementation. Prior to mitigation, implementation of the Project would result in potentially significant impacts to Biological Resources and Noise. Implementation of the mitigation measures (MMs) would reduce all potentially significant impacts to a less than significant level.

The analysis presented also lists the applicable regulatory requirements (RRs) for each environmental topic. RRs are based on local, State, and/or federal regulations or laws that are required independent of CEQA review, yet also serve to offset or prevent certain impacts. Because RRs are required to be part of a project's design or implementation and are necessarily separate from the CEQA process, they do not constitute mitigation measures. According to Section 15370 of the State CEQA Guidelines, mitigation includes the following:

- Avoiding the impact altogether by not taking a certain action or parts of an action;
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
- Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment;
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
- Compensating for the impact by replacing or providing substitute resources or environments.

Pursuant to Section 15074(b) of the State CEQA Guidelines, it is appropriate to prepare an MND for the Project because, with incorporation of MMs, potentially significant environmental impacts would be eliminated or reduced to a less than significant level. The RRs and MMs identified for the Project are listed below.

REGULATORY REQUIREMENTS AND MITIGATION MEASURES

REGULATORY REQUIREMENTS

The County will confirm that the following RRs are included in the Contractor Specifications and bid documents, as appropriate, and are verified as part of the Mitigation Monitoring and Reporting Program (MMRP). The following RRs will be implemented to the satisfaction of the County.

RR AQ-1 All construction activities will be conducted in compliance with all applicable South Coast Air Quality Management District (SCAQMD) rules and permitting requirements, including but not limited to:

- SCAQMD Rule 403, Fugitive Dust, for controlling fugitive dust and avoiding nuisance. Compliance with this rule will reduce short-term particulate

pollutant emissions. Contractor compliance with Rule 403 requirements will be mandated in the contractor's specifications.

- SCAQMD Rule 402, Nuisance, which states that a Project will not “discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property”.
- SCAQMD Rule 201, Permit to Construct, requires a permit prior to the installation of any equipment “the use of which may cause the issuance of air contaminants . . .”. SCAQMD Regulation II, List and Criteria Identifying Information Required of Applicants Seeking a Permit to construct from the South Coast Air Quality Management District, provides the requirements for the application for a Permit to Construct. SCAQMD Rule 203, Permit to Operate, requires a permit following the completion of construction permitted by the Permit to Construct.

RR CUL-1 If human remains are encountered during excavation activities, the requirements of *California Public Resources Code* §5097.98 and *California Health and Safety Code*, §7050.5 will be followed. This includes halting all work in the immediate vicinity of the discovery and notifying the County Coroner (*California Public Resources Code* §5097.98), who will determine whether the remains are of forensic interest. If it is determined that the remains are prehistoric, the Native American Heritage Commission (NAHC) will then be contacted in order to designate the most likely descendant (MLD). Pursuant to Section 7050.5 of the *California Health and Safety Code*, the MLD will make his/her recommendation within 48 hours of being granted access to the site and is responsible for the ultimate disposition of the remains. The MLD's recommendation will be followed if feasible, and may include scientific removal and non-destructive analysis of the human remains and any items associated with Native American burials (*California Health and Safety Code*, §7050.5). If the landowner rejects the MLD's recommendations, the landowner will rebury the remains with appropriate dignity on the property in a location that will not be subject to further subsurface disturbance (*California Public Resources Code* §5097.98).

RR GEO-1 The LFG Extraction System will be designed and constructed in compliance with Title 26, Building Code, of the County of Los Angeles Code, which incorporates by reference the 2013 California Building Code (CBC); the Los Angeles County Department of Public Works' *Standard Specifications for Public Works Construction* (Graybook); and any other applicable ordinances set forth by the County for ensuring the structural integrity of new construction against seismic and soil engineering hazards.

RR HAZ-1 Construction activities at the Project site will comply with existing federal, State, and local regulations regarding hazardous material use, storage, disposal, and transport to prevent Project-related risks to public health and safety, including but not limited to the U.S. Department of Transportation regulations listed in the Code of Federal Regulations (Title 49, Hazardous Materials Transportation Act); California Department of Transportation (Caltrans) standards; and the California Occupational Safety and Health Administration (CalOSHA) standards. All on-site generated waste that meets hazardous waste criteria will be stored, manifested, transported, and

disposed of in accordance with the *California Code of Regulations* (Title 22) and in a manner to the satisfaction of the local Certified Unified Program Agency (CUPA), the Los Angeles County Fire Department.

- RR HYD-1** The Project will comply with Section 5.106.1 et seq. of the California Green Building Standards Code (CALGreen) through compliance with a local storm water management/erosion control ordinance. Consistent with CALGreen requirements, the Project will be constructed in compliance with the County's Stormwater and Runoff Pollution Control Ordinance (Chapter 12.80 of the County Code), which identifies prohibited discharges and connections; facilities required to obtain a National Pollutant Discharge Elimination System permit; Best Management Practices for construction activities and institutional facilities; and enforcement procedures.
- RR NOI-1** In compliance with the City of Monterey Park Municipal Code and the County Code, Project construction activities that generate substantial noise (e.g., the operation of construction equipment and mechanical equipment) will be limited to the hours of 7:00 AM to 7:00 PM on weekdays and 9:00 AM to 6:00 PM on Saturdays.
- RR TRA-1** The County's general construction requirements require the implementation of temporary traffic control in accordance with the Los Angeles County Department of Public Works' *Standard Specifications for Public Works Construction* (Graybook), which contains standards for traffic and access (i.e., maintenance of access, traffic control, and notification of emergency personnel).
- RR UTL-1** Construction activities on the Project site will be conducted in compliance with Chapter 20.87 (Construction and Demolition Debris Recycling and Reuse) of the Los Angeles County Code, which requires at least 50 percent of all Construction and Demolition (C&D) debris, soil, rock, and gravel removed from the Project site to be recycled or reused unless a lower percentage is approved by the Los Angeles County Director of Public Works.

MITIGATION MEASURES

Prior to application of mitigation measures, implementation of the Project would result in potentially significant impacts to Biological Resources, Cultural Resources, and Noise. Implementation of MM BIO-1, MM CUL-1, MM CUL-2, and MM NOI-1, as detailed in the environmental analysis presented in Section 4.0 of this IS/MND, would reduce potentially significant impacts to Biological Resources, Cultural Resources, and from Noise to a less than significant level. MM BIO-1, MM CUL-1, MM CUL-2, and MM NOI-1, as presented in Table 1-1, Mitigation Program, would be included in the Contractor Specifications and bid documents, as appropriate, and verified as part of the MMRP.

**TABLE ES-1
MITIGATION PROGRAM**

Potential Impact	Mitigation Measures	Timing	Responsible Party	Level of Significance After Mitigation
Biological Resources				
<p>Project implementation has the potential to impact nesting birds and raptors protected by the Migratory Bird Treaty Act.</p>	<p>MM BIO-1: The Project shall be conducted in compliance with the conditions set forth in the Migratory Bird Treaty Act (MBTA) and <i>California Fish and Game Code</i> with methods approved by the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) to protect active bird/raptor nests. If possible, construction activities shall occur during the non-breeding season for nesting birds and nesting raptors to avoid impacts to nesting birds and raptors. If the Project requires that construction activities be initiated during the breeding season for nesting birds (March 1–September 30) and nesting raptors (February 1–June 30), a pre-construction survey for nesting birds and/or raptors shall be conducted by a qualified Biologist within 3 days prior to any construction activities within the Project site and immediately surrounding area (i.e., within 50 feet for nesting birds and within 500 feet for nesting raptors). If the Biologist does not find any active nests in or immediately adjacent to the Project site, the construction work shall be allowed to proceed and no further mitigation is required.</p> <p>If the Biologist finds an active nest in or immediately adjacent to the planned construction site and determines that the nest may be impacted or breeding activities substantially disrupted due to planned construction activities, the Biologist shall delineate an appropriate buffer zone around the nest depending on the sensitivity of the species and the nature of the construction activity. Any nest found during survey efforts shall be mapped on the construction plans. The active nest shall be protected until nesting activity has ended. To protect any nest site, the following restrictions to construction activities shall be required until nests are no longer active, as determined by a qualified Biologist: (1) construction limits shall be established within a buffer around any occupied nest (the buffer shall be 25–100 feet for nesting birds and 300–500 feet for nesting raptors), unless otherwise determined by a qualified Biologist and (2) access and surveying shall be restricted within the buffer of any occupied nest, unless otherwise determined by a qualified Biologist. Encroachment into the buffer area around a known nest shall only be allowed if the Biologist determines that the proposed activity would not disturb the nest occupants. Construction in a buffer area can proceed when the qualified Biologist has determined that fledglings have left the nest or the nest has failed.</p>	<p>Within 3 days of any construction activity and during construction, depending on findings of pre-construction survey.</p>	<p>County</p>	<p>Less than significant.</p>

**TABLE ES-1
MITIGATION PROGRAM**

Potential Impact	Mitigation Measures	Timing	Responsible Party	Level of Significance After Mitigation
Cultural Resources				
Installation of the proposed monitoring wells has the potential to encounter unknown buried historical, archaeological, or tribal cultural resources.	MM CUL-1: Should potential archaeological resources be found during ground-disturbing activities for the Project, drilling activity shall be temporarily halted and a qualified Archaeologist shall be hired to first determine whether the resource is a "Tribal Cultural Resource" pursuant to Section 21074 of the California Public Resources Code, a "unique archaeological resource" pursuant to Section 21083.2(g) of the California Public Resources Code, or a buried "historical resource" pursuant to Section 15064.5(a) of the California Environmental Quality Act (CEQA) Guidelines. If the potential resources is determined not be significant by the Archaeologist pursuant to the above-referenced sections, working on the monitoring well would resume. If the archaeological resource is determined to be a "Tribal Cultural Resource", "unique archaeological resource", or a "historical resource", the Archaeologist shall formulate a mitigation plan in consultation with the County that satisfies the requirements of the above-referenced sections. Upon approval of the mitigation plan by the County, the Project shall be implemented in compliance with the mitigation plan. If the Archaeologist determines that the archaeological resource is not a "Tribal Cultural Resource", "unique archaeological resource", or "historical resource", for those resources that are 45 years old or more, s/he may record the site and submit the recordation form to the California Historic Resources Information System at the South Central Coastal Information Center at California State University, Fullerton.	During drilling of the proposed monitoring wells.	County	Less than significant.
Installation of the proposed monitoring wells has the potential to encounter unknown paleontological resources.	MM CUL-2: Should potential paleontological resources be found during ground-disturbing activities for the Project, drilling activity shall be temporarily halted and a qualified Paleontologist will be hired to evaluate the resource. If the potential resources is determined not be significant by the Paleontologist pursuant to the above-referenced sections, working on the monitoring well would resume. If the resource is found to be significant, the Paleontologist shall determine appropriate actions, in cooperation with the County, for further exploration and/or salvage. A Disposition of the Recovered Paleontological Resources and Mitigation Report shall be prepared by the qualified Paleontologist and submitted to the County. Any recovered fossils shall be deposited in an accredited institution or museum, such as the Natural History Museum of Los Angeles County.	During drilling of the proposed monitoring wells.	County	Less than significant.

**TABLE ES-1
MITIGATION PROGRAM**

Potential Impact	Mitigation Measures	Timing	Responsible Party	Level of Significance After Mitigation
Noise				
<p>Drilling at proposed monitoring well location CMW-1 on Rollins Drive would result in temporary noise levels that exceed the County of Los Angeles Noise Ordinance.</p>	<p>MM NOI-1: When drilling at the CMW-1 monitoring well location, the County shall require the drilling contractor to install a noise barrier to the height of the engine compartment of the auger plus two feet for drilling occurring proximate to the residence west of the CMW-1 location on Rollins Drive. This sound barrier shall have a minimum density of 4 pounds per square foot or a sound transmission class of 20 decibels or greater. The sound barrier shall cover the width of the drilling rig plus a minimum of a four foot side panel. The configuration of the overall sound barrier will be similar to the letter C, and be placed between the residence and the drill rig. Additionally, not less than 30 calendar days prior to drilling, the County shall notify the resident(s) of the home immediately west of the CMW-1 location of the date and hours of the planned drilling, and that the drilling will be a noise-generating operation that may also produce perceptible vibration. The County shall use U.S. Postal Service Certified Mail or an overnight delivery service to obtain proof of delivery to the above-specified home without requiring a signature. If the schedule for the CMW-1 drilling changes subsequent to notifying the resident(s) and obtaining confirmation of notification delivery, County shall repeat the notification procedure once the drilling activity is rescheduled. If the rescheduled date is less than 30 calendar days in the future, the notification shall be delivered as soon as feasible.</p>	<p>Notification timing: not less than 30 calendar days prior to drilling.</p> <p>Noise reduction timing: during all operation of the drill rig on Rollins Drive.</p>	<p>County</p>	<p>Less than significant.</p>

SECTION 1.0 INTRODUCTION

1.1 PURPOSE OF THE INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

In accordance with CEQA (*California Public Resources Code* §21000 et seq.) and the State CEQA Guidelines (*California Code of Regulations*, Title 14, §15000 et seq.), this Initial Study (IS) has been prepared as documentation for a Mitigated Negative Declaration (MND) for the County's Former Cogen Landfill Gas Extraction System and Monitoring Plan Project. This IS/MND includes a description of the Project; the location of the Project site; an evaluation of the potentially significant environmental impacts of Project implementation; and recommended mitigation measures to lessen or avoid impacts on the environment.

Pursuant to Section 15367 of the State CEQA Guidelines, the County is the Lead Agency for the Project. The Lead Agency is the public agency that has the principal responsibility for carrying out a project and also has the authority to approve the Project and its accompanying environmental documentation. In addition to addressing the potentially significant environmental impacts that would result from the Project, this IS/MND serves as the primary environmental document for future activities associated with the Project, including discretionary approvals requested or required for Project implementation, which are described in Section 3.3, Anticipated Project Approvals, of this IS/MND.

The County, as the Lead Agency, has reviewed and revised, as necessary, all submitted drafts and technical studies and has commissioned the preparation of this IS/MND to reflect its independent judgment. Data for this IS/MND was obtained from on-site field observations and review of available technical studies, reports, guidelines, and data. The County has the authority to approve the Project and to adopt this IS/MND.

1.2 CEQA PROCESS AND PROJECT APPROVAL

The IS/MND has been submitted to potentially affected agencies. A Notice of Intent to Adopt an MND (NOI) was mailed to affected agencies and interested organizations and individuals, and is on file at the Los Angeles County Registrar-Recorder/County Clerk in the City of Norwalk. A summary of the NOI was published in the Los Angeles Daily News and La Opinión newspapers to announce the public review period. The IS/MND and associated technical reports are available online at [ftp://dpwftp.co.la.ca.us/pub/pmd/Cogen Landfill Gas Mitigation MND/](ftp://dpwftp.co.la.ca.us/pub/pmd/Cogen_Landfill_Gas_Mitigation_MND/). Hard copies are available for public review during business hours at the County Department of Public Works' Headquarters (900 South Fremont Avenue, 2nd Floor in Alhambra, California) and at the Anthony Quinn Library, located at 3965 Cesar E. Chavez Avenue in Los Angeles, California, approximately one mile south-southwest of the Project site.

There will be a 30-day public review period for the IS/MND, in accordance with Section 15073 of the State CEQA Guidelines. In reviewing the IS/MND, the reviewer should focus on the sufficiency of the document in identifying and analyzing the potentially significant impacts on the environment and ways in which the potentially significant effects of the Project are avoided or lessened. Comments or questions on this IS/MND, postmarked by 5:00 PM on Wednesday, February 17, 2017, can be sent in writing by mail to the County at the address below, via email to onabahani@dpw.lacounty.gov, or by fax to (626) 300-2387. Include "Former Cogen Landfill Gas Extraction System and Monitoring Plan Project" in the subject line. Comments can also be mailed to the following address:

Los Angeles County Department of Public Works
Project Management–Division II
900 South Fremont Avenue
Alhambra, California 91803

Attn: Former Cogen Landfill Gas Extraction System and Monitoring Plan Project

In accordance with Section 15074(b) of the State CEQA Guidelines, prior to approving the Project, the Los Angeles County Board of Supervisors (Board) will consider the proposed IS/MND together with any comments received during the public review process. The Board will adopt the proposed MND only if it finds that there is no substantial evidence that the Project will have a significant effect on the environment and that the MND reflects the independent judgment and analysis of the Board.

SECTION 2.0 ENVIRONMENTAL SETTING

2.1 PROJECT LOCATION

The Project site includes three separate areas including the County of Los Angeles-owned, 4.6-acre portion of the approximate 40-acre former Cogen Landfill, located within the westernmost portion of the City of Monterey Park (City), and two discrete monitoring well locations located within the unincorporated County community of City Terrace. In addition, the Project may require trenching to connect on-site electrical lines to an off-site utility pole located in the parking lot area of the County-owned Sybil Brand Institute.

The City of Los Angeles community of University Hills is located approximately ½ mile to the north of the Project site beyond Interstate (I) 10; and the City of Alhambra is located approximately ¾ mile to the northeast of the Project site beyond I-710. The site is located approximately ½ mile southwest of the I-10 and I-710 interchange and approximately three miles east of downtown Los Angeles. Regional access to the Project site is via the Eastern Avenue exit from I-10 or the Floral Drive exit from I-710, as depicted in Exhibit 2-1, Regional Location and Local Vicinity.

2.2 PROJECT BACKGROUND AND NEED

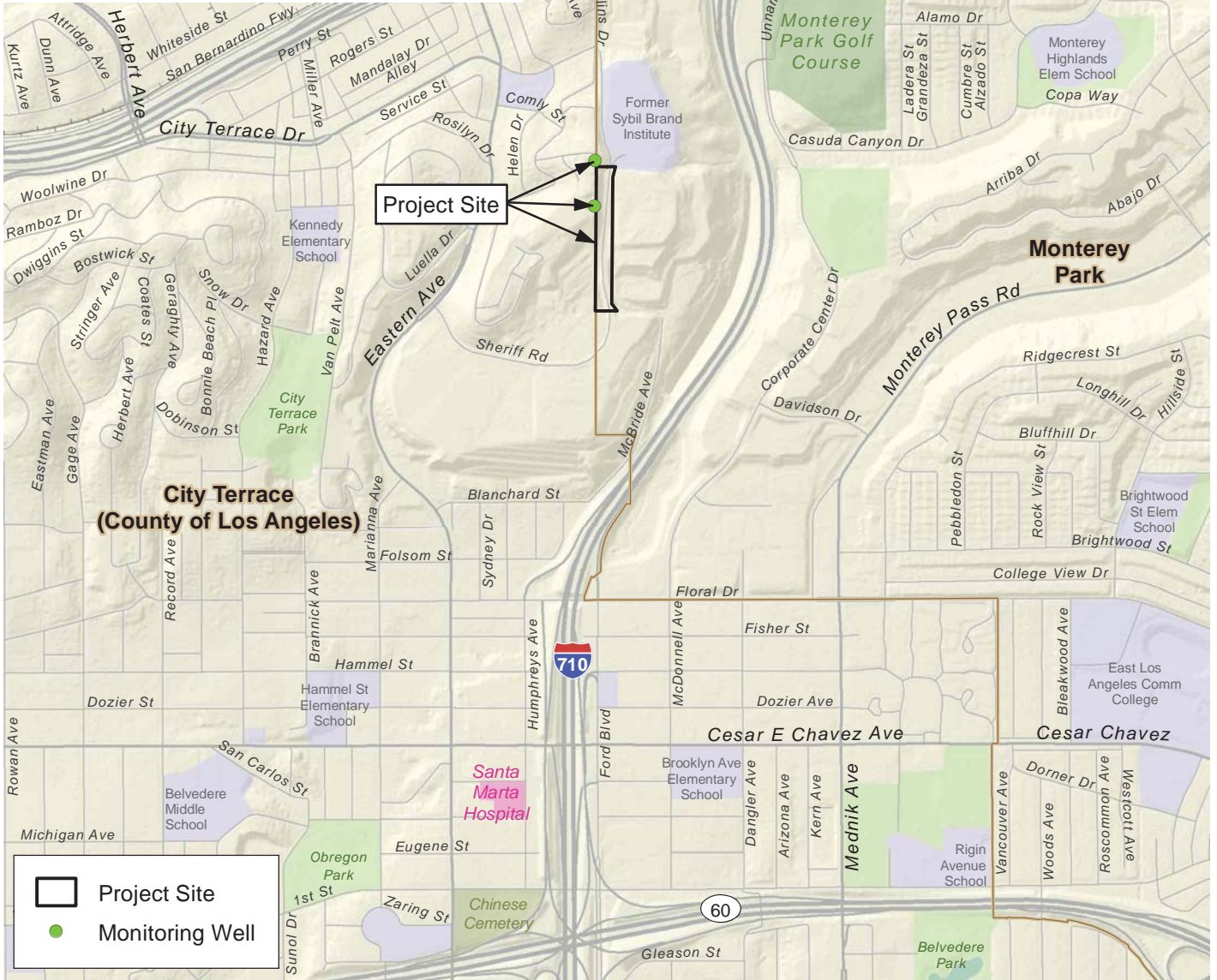
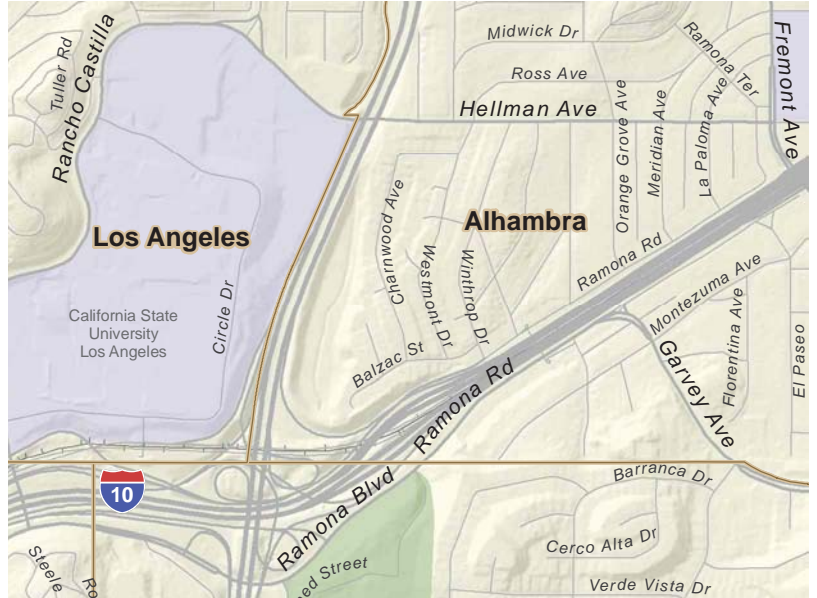
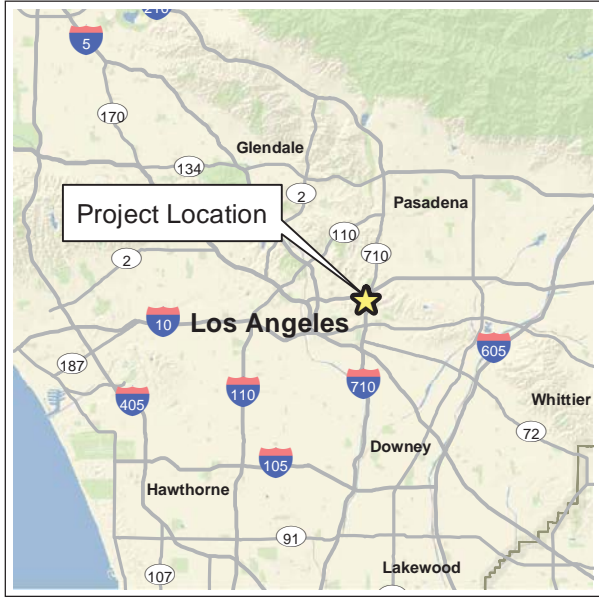
2.2.1 COGEN LANDFILL HISTORY

The former Cogen Landfill (hereinafter referred to as “Cogen” or “landfill”) operated from 1951 through 1957 and was formally closed in 1958. The landfill is believed to have received between one and two million cubic yards of total waste and was permitted to accept general household and commercial rubbish and refuse, industrial wastes as both liquids and solids, tank bottoms, and rotary muds. Cogen is identified on the California Department of Resources Recycling and Recovery (CalRecycle) Solid Waste Information Database (SWIS) under facility number 19-AA-0581 (IE 2015).

The landfill includes separate parcels owned by different entities. The County is a minority property owner of the landfill, with an approximate 4.6-acre parcel or approximately 12 percent of the total landfill area. The other property owners currently include Crown Enterprises, Inc. (Crown; 28.4 acres or approximately 71 percent) and Bar V. Bar (Bar; 7 acres or approximately 17 percent). The California Department of Transportation (CalTrans) also owns a small portion of the landfill property comprised of the I-710 right-of-way; however, Caltrans is not a party to this regulatory action, as discussed further below.

2.2.2 PREVIOUS LANDFILL GAS RELEASE AND REGULATORY ACTION

The Los Angeles County Department of Public Health (LACDPH) is the designated local enforcement agency (LEA) with jurisdiction over migration of LFG from the landfill. Since 1985, several investigations throughout the landfill have been performed to assess LFG levels and any possible groundwater impacts (LACDPW 2014). The LFGs of concern at Cogen include carbon dioxide and methane (LACDPW 2014). These investigations indicate that, while on-site LFG levels were within acceptable limits, the off-site migration of LFG to adjacent properties was a potential hazard. In response to methane emission levels measured in 2002, the LEA conducted a joint inspection with the South Coast Air Quality Management District (SCAQMD) and the Los Angeles County Fire Department (LACFD). A Notice and Order was issued by the LEA to the County in December 2002 requiring containment of the methane emissions and a methane remediation plan for the west side of the landfill. The County subsequently implemented the remediation plan under the LEA’s oversight and approval. Due to subsequent methane



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Regional Location and Local Vicinity

Former Cogen Landfill Gas Extraction System and Monitoring Plan Project

Exhibit 2-1



combustion in 2004, the County developed another remediation plan for methane that entailed more extensive measures, including installing perimeter probes to detect methane migration; monitoring landfill surface emissions; collecting and analyzing raw LFG; preparing an aerial survey of the property; and submitting a final report to the LEA on results and findings (LACDPW 2014).

In June 2012, inspections by the LEA showed LFG concentrations that exceeded the acceptable level and, on June 28, 2012, the SCAQMD and the LEA issued Notices to the property owners—the County, Crown, and Bar—as well as the City of Monterey Park—due to these LFG concentrations (IE 2015).

In January 2013, temporary repairs to two fissures were performed by the County to contain the LFG emissions. On December 3, 2012, immediately prior to implementation of those repairs, the LEA issued a Stipulated Notice and Order (Stipulated Order) to these entities to allow for a joint remediation plan and to establish milestones for achieving full remediation of LFG emissions throughout the landfill. In June 2013, the County disseminated to the other property owners a rough order of magnitude cost analysis for the development and ongoing maintenance of an LFG Extraction System for the entire Cogen landfill. Despite the County's effort to propose a landfill-wide remedy, consistent with the Stipulated Notice, the other entities failed to cooperate or respond (LACDPW 2014).

On August 8, 2013, an Amended Notice and Order (Amended Order) was issued by the LEA and subsequently appealed by Crown. On August 18, 2014, Crown and the LEA resolved the appeal and made the Amended Order effective as of that date. The Amended Order requires these entities to separately take the following actions:

1. Prepare and provide an LFG monitoring work plan.
2. Begin monitoring for LFG migration, per the submitted work plan.
3. Provide a work plan to prevent the off-site migration of LFG.
4. Construct, install, and operate the LFG control system.

Pursuant to the Amended Order (Action No. 1), the County has prepared a Monitoring Plan for LFG emissions from the County-owned portion of the landfill, which complies with requirements in the *California Code of Regulations* (CCR, Title 27)(IE 2015). The LEA reviewed the draft Monitoring Plan and provided comments in a letter dated February 2, 2015; and a revised Monitoring Plan was submitted to the LEA on March 25, 2015. The LEA provided a second round of comments in an email dated July 2, 2015. Pursuant to the LEA's most recent request, a second revision of the Monitoring Plan (dated October 8, 2015) was prepared and submitted to the LEA (IE 2015). The LEA approved this Monitoring Plan on December 31, 2015. The Project includes implementation of the approved Monitoring Plan. Also, consistent with Action No. 2, the County has performed ongoing monitoring of LFG at 20 existing monitoring locations in the northern section of the County-owned property, pursuant to the LEA's direction and concurrence (Andersen Environmental 2014).

At the same time Action Nos. 1 and 2 are being performed, to implement Action No. 3, the County has studied the Project area to determine the precise boundary of the County's property; to determine the extent of refuse beneath the County-owned property; to obtain surficial methane readings and trends; and to develop options for LFG remediation. In April 2014, a preliminary engineering design concept for an LFG Extraction System to prevent off-site LFG migration from the County-owned portion of the former landfill was submitted to LEA for review and concurrence. It is noted that the LFG Extraction System preliminary design was submitted to the LEA prior to issuance of the Amended Order. The LEA requested a more detailed design to complete the

review and permitting process (LACDPW 2014). The refinement of the proposed LFG Extraction System is ongoing parallel to the CEQA process. Where applicable, this IS/MND assesses a reasonable worst-case scenario of potential effects to capture all environmental impacts of the Project's construction and operation with implementation of the final LFG Extraction System design as well as implementation of the Monitoring Plan. The Project, defined below in Section 3.0, Project Description, reflects full implementation of Actions Nos. 1 through 4 of the LEA's Amended Order. The Project would also provide compliance with the South Coast Air Quality Management District's Rule 1150.1 – Control of Gaseous Emissions from Municipal Solid Waste Landfills.

2.3 PROJECT SITE CHARACTERISTICS

2.3.1 LAND USES AND PHYSICAL CHARACTERISTICS

The Project site consists of three separate areas, including a 4.6-acre, County-owned portion of the former Cogen Landfill and two discrete monitoring well locations situated to the west and northwest of the landfill. In addition, the Project may require trenching to connect on-site electrical lines to an off-site utility pole located in the parking lot area of the County-owned Sybil Brand Institute.

County-Owned Portion of the Landfill

The landfill portion of the Project site is comprised of a rectangular-shaped parcel, with a generally north-south orientation, as shown on Exhibit 2-2, Surrounding Land Uses, and on Exhibit 2-3, County-Owned Property and Off-Site Project Components. As shown on Exhibit 2-3, this area is traversed by the approximate 45-foot-wide Sheriff Road, including the sidewalk and other public right-of-way. A five-foot-high chain-link fence is present on either side of the Sheriff Road right-of-way.

To the east of Sheriff Road, this area is comprised of vacant, bare to sparsely vegetated land that abuts the remainder of the former landfill. To the west of Sheriff Road, the northern two-thirds is comprised of vacant, partially vegetated land; and the southern third overlaps a portion of Los Angeles County Sheriff's Department (LACSD) Biscailuz Regional Training Center (BRTC).

The landfill area has elevations ranging from approximately 620 feet above mean sea level (msl) in the northwest corner to approximately 470 feet above msl along the southern boundary. The area has variable topography, both from north to south and from east to west. The northern two-thirds of the Project site is comprised of a steep (i.e., up to a 50 percent gradient), approximate 75-foot-high slope that ascends westerly either from Sheriff Road or, in the northernmost portion of the area, from a narrow, flat area. The top of this slope abuts the boundary with the community of City Terrace at Rollins Drive. The western refuse limit of the former landfill is believed to end somewhere between the top and bottom of this slope. In the southern third of the area, the topography generally descends westerly with a gentle slope from Sheriff Road towards the County facilities. Storm water runoff drains as sheet flow towards existing drainage infrastructure located either within Sheriff Road or within the adjacent County facilities, depending on the localized topography.

The landfill area includes ornamental and disturbed vegetation types, and there are no sensitive biological resources or jurisdictional waters. Vegetation mapping was conducted in the 0.7-acre footprint within the Project site that may be disturbed with installation and operation of the LFG Extraction System (i.e., disturbance footprint or footprint). Within this 0.7-acre footprint, the south- and east-facing slopes at the northern edge of the area contain ornamental vegetation and include species such as tree of heaven (*Ailanthus altissima*), ornamental yucca (*Yucca* sp.), and

eucalyptus trees (*Eucalyptus* sp.). The disturbed areas of the footprint consist of bare soil and scattered weedy species such as Russian thistle (*Salsola tragus*), tree tobacco (*Nicotiana glauca*), giant reed (*Arundo donax*), and castor bean (*Ricinus communis*).

Monitoring Well Locations

The Project proposes installation of two LFG monitoring wells at the top of the slope to monitor migration of LFG from the County-owned portion of the landfill. The locations of the proposed monitoring wells are illustrated on Exhibits 2-2, Surrounding Land Uses, and 2-3, County Owned Property and Project Boundaries. The physical characteristics of the two monitoring well locations is similar. Both locations are essentially flat, and paved with asphalt. There is no vegetation or jurisdictional waters at the locations of the proposed monitoring wells.

2.3.2 SURROUNDING LAND USES

County-Owned Portion of the Landfill

The landfill portion of the Project site is situated within the Eastern Avenue Hill Complex, which includes multiple facilities for several County departments and the former Blanchard and Cogen Landfills, as shown on Exhibit 2-2. The County owns the majority of the former Blanchard Landfill.

The landfill area is bound on the north by a small strip of vacant, County-owned property. To the northeast is the former Sybil Brand Institute for Women (SBI), which is currently vacant and non-operational. The Project site is bound on the east by the remainder of the former Cogen Landfill and the former Blanchard Landfill. To the southeast is an LACSD heliport. The landfill area is bound on the south and southwest by the remainder of the BRTC facilities and the Los Angeles County Fire Department Headquarters. Single- and multi-family residential communities within City Terrace are located to the west and northwest of the Project site.

Monitoring Well Locations

The Monterey Park/Los Angeles County (City Terrace) boundary transects the County-owned portion of the Project site and the two monitoring well locations. The northern well location is situated to the northwest of the landfill and outside the Eastern Avenue Hill Complex; there are single- and multi-family residential properties in community of City Terrace immediately to the west of this well location. These homes are located at the top of an approximate 75-foot-high slope within the northwestern portion of the landfill area.

The southern well location is situated to the west of the landfill and inside the complex. Buildings and infrastructure associated with the Los Angeles County Fire Department Headquarters and the Los Angeles County Sheriff's Department Biscailuz Regional Training Center area located immediately to the west and south of this well location.

2.4 CHARACTERISTICS OF POTENTIAL OFF-SITE PROJECT AREA

There is the potential for an off-site electrical connection, if the Project is required to connect to the existing utility pole to the east across Sheriff Road rather than the on-site utility pole. The location of the trenching that would be required for this Project component is illustrated on Exhibit 2-3. The alignment of the electrical connection is essentially flat, and paved with either asphalt or concrete. This is no vegetation or a jurisdictional drainage feature.



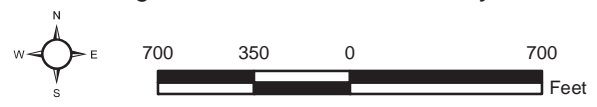
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Aerial Source: LAR-IAC 2014

Surrounding Land Uses

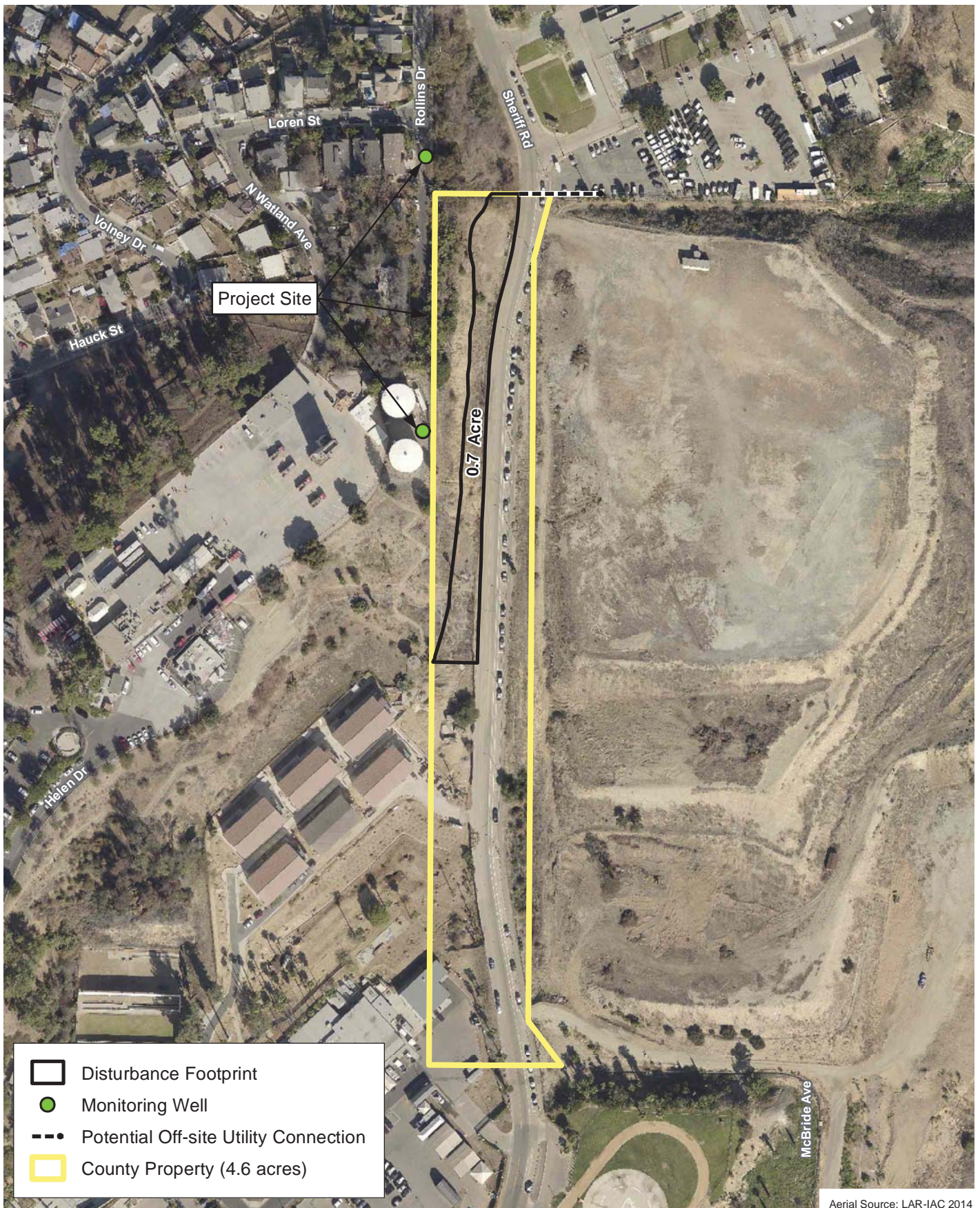
Exhibit 2-2

Former Cogen Landfill Gas Extraction System and Monitoring Plan Project



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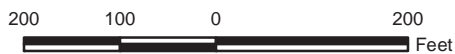


Aerial Source: LAR-IAC 2014

County Owned Property and Project Boundaries

Exhibit 2-3

Former Cogen Landfill Gas Extraction System and Monitoring Plan Project



SECTION 3.0 PROJECT DESCRIPTION

The Project involves the (1) installation and operation of an LFG Extraction System that would extract and treat LFG from the former Cogen Landfill, (2) the installation of two new LFG monitoring wells, and (3) subsequent monitoring of LFG emissions from the Project site at six well locations (two new and four existing) and at surface locations. The purpose of the Project is to reduce the off-site migration of LFG from the approximate 4.6-acre, County-owned portion of the former landfill, thereby ensuring that LFG concentrations surrounding the Project site do not exceed acceptable regulatory levels.

3.1 LANDFILL GAS EXTRACTION SYSTEM

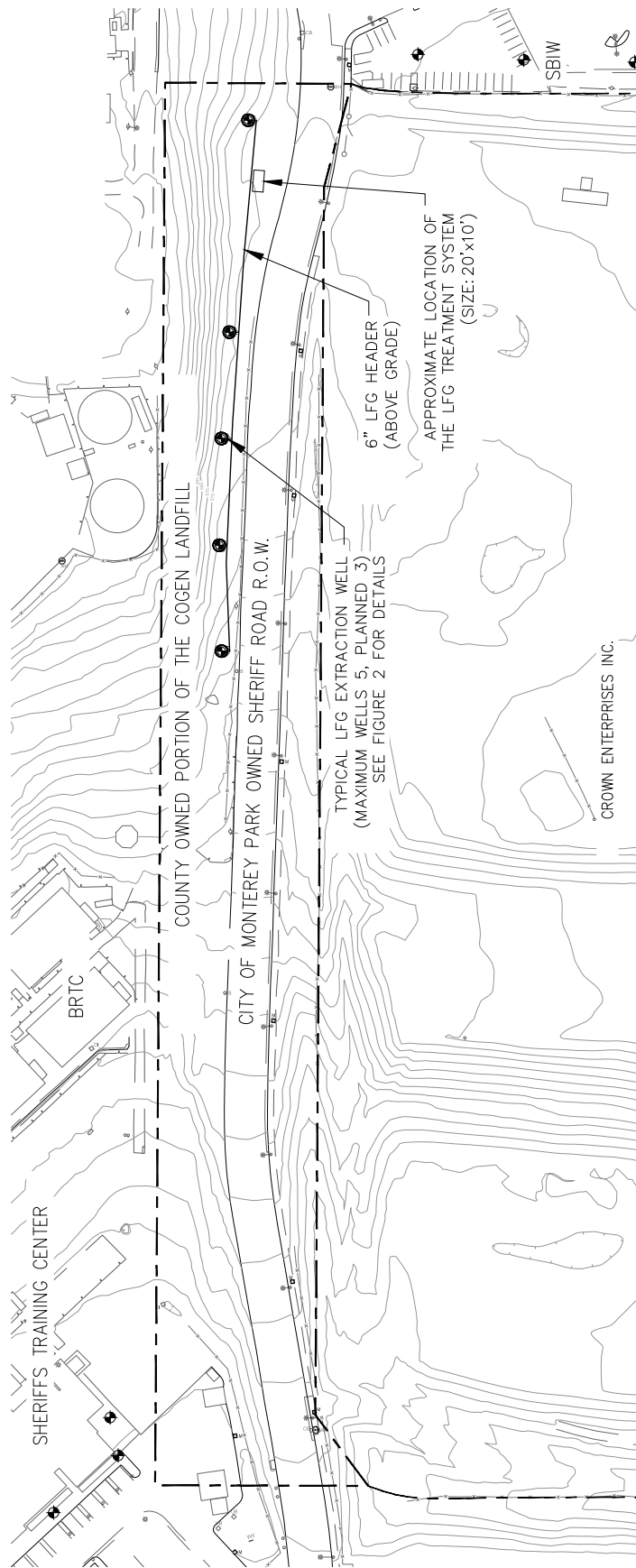
3.1.1 PRELIMINARY DESIGN

The LFG Extraction System would be sized to capture the LFG generation mainly from the County-owned portion of the landfill, consistent with the LEA's Amended Order. To accomplish this, the LFG generation potential of the landfill was estimated, using the U.S. Environmental Protection Agency's (USEPA's) Landfill Gas Emissions Model (LandGEM) Version 3.02. The LandGEM modeling for the Project is discussed further in Section 4.2, Air Quality, of this IS/MND. The results of the modeling show that the present LFG generation potential of the entire landfill is approximately 100 standard cubic feet per minute (scfm). However, only a fraction of the total LFG being generated within the landfill is from the 4.6-acre County-owned property, which is relatively small (approximately 12 percent of the landfill) compared to the other property owners cited in the Amended Order (Andersen Environmental 2014).

As discussed previously, a preliminary design for the LFG Extraction System was submitted to the LEA in April 2014, and the County has since continued with the LFG Extraction System design process. Exhibit 3-1, LFG Extraction System (Preliminary Design), provides a plan view of the design concept, which would be composed of a media bed treatment system (treatment system) connected by piping to up to five extraction wells. Exhibit 3-2, Typical LFG Extraction Well Design and Details (Preliminary Design), provides a cross-section of the typical LFG extraction well design anticipated for the Project and includes details of the wellhead infrastructure that would connect each extraction well to each other and the treatment system.

The locations of the extraction wells on Exhibit 3-1 are conceptual and may change based on LEA review and/or continued engineering refinement of the LFG Extraction System. However, the southern limit of the disturbance footprint shown on Exhibit 2-2 and Exhibit 2-3 is the furthest distance from the treatment system that an extraction well could be installed based on the engineering specifications of the design. Therefore, this IS/MND analyzes the potential disturbance of a 0.7-acre footprint within the Project site for the installation and operation of five extraction wells (i.e., the maximum number of wells) that could be located anywhere within this footprint.

Since the anticipated flow of LFG from the extraction wells would be small, ranging from 0 to 100 scfm (i.e., the total LFG generation) on a given day—a media bed treatment system (treatment system) has been proposed. The alternative to a media bed treatment system for LFG capture is a flare; however, it has been determined that the flow of LFG at this site would not be sufficient to sustain a flare (Andersen Environmental 2014). Exhibit 3-3, Rendering of Media Bed Treatment System (Preliminary Design), provides a three-dimensional simulation of the treatment system.



Source: Innovision Engineering 2015

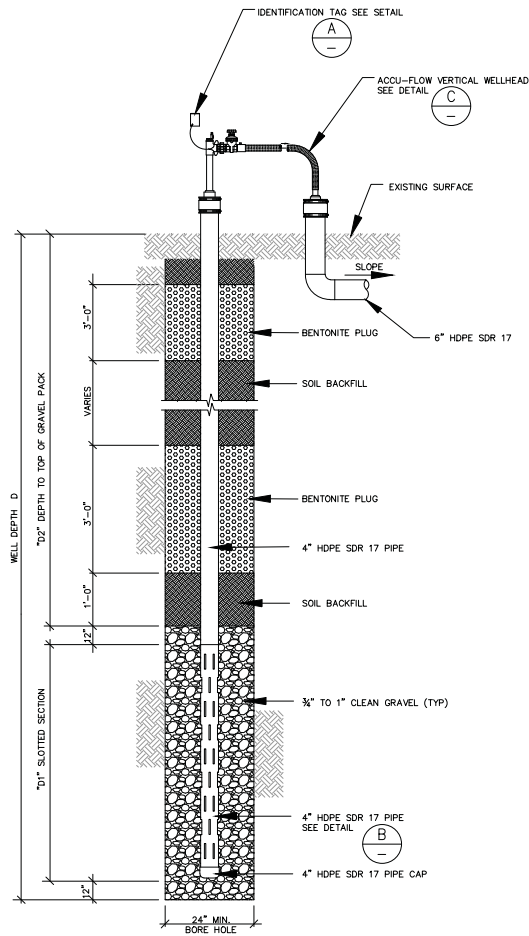
LFG Extraction System (Preliminary Design)

Former Cogen Landfill Gas Extraction System and Monitoring Plan Project

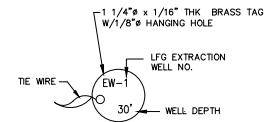
Exhibit 3-1



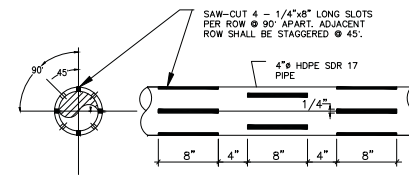
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TYPICAL LFG EXTRACTION WELL
N.T.S.



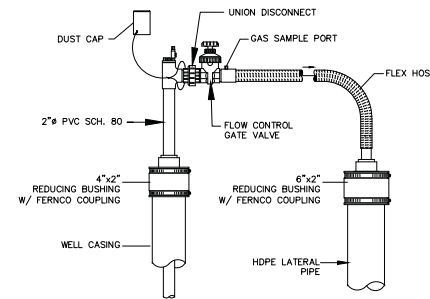
DETAIL - IDENTIFICATION TAG
N.T.S.



DETAIL - SLOTTED PIPE
N.T.S.



TOP VIEW DETAIL



DETAIL - 2" DIA. ACCU-FLOW VERTICAL WELLHEAD
N.T.S.

Source: Innovision Engineering 2015

Typical LFG Extraction Well Design and Details (Preliminary Design)

Exhibit 3-2

Former Cogen Landfill Gas Extraction System and Monitoring Plan Project





Source: Innovision Engineering 2015

Rendering of Media Bed Treatment System (Preliminary Design)

Exhibit 3-3

Former Cogen Landfill Gas Extraction System and Monitoring Plan Project

Bonterra
PSOMAS

As shown on Exhibit 3-3, the treatment system would have components of various heights, up to approximately ten feet high; the system would then be connected to the pipelines leading to the wells, and the system would be commissioned to ensure proper operation.

The Project would include a maximum of five extraction wells that would each have a 150-foot radius of influence¹ and would be spaced no more 150 feet apart. The extraction wells are anticipated to be between 40 and 45 feet deep, as the northern portion of the disturbance footprint has an estimated 10 feet of landfill cover and an estimated waste depth of approximately 40 feet. Each extraction well would be immediately connected to the treatment system when installation is complete to limit emissions of LFG from the borehole.

As shown on Exhibit 3-2, the extraction wells are anticipated to be comprised of a 4-inch diameter, high density polyethylene (HDPE) pipe within an approximate 24-inch-diameter borehole. A six-inch HDPE LFG collection header, which would extend above the wellhead cover (referred to as a vertical wellhead), would be used to convey the LFG collected by these wells to the treatment system. The wellhead design would allow the maintenance staff to adjust the vacuum on each well, if needed, and to take LFG Extraction System discharge readings during long-term operation. The pipeline connecting the vertical wellhead may be installed underground (as shown on Exhibit 3-2) or aboveground. A determination on pipeline placement would be determined as part of LFG Extraction System refinement through coordination with the LEA.

The extraction wells would be operated under constant vacuum via a maximum ten-horsepower (hp) blower, powered by a three-hp motor, on the treatment system. The vacuum is necessary to move the LFG from the ground to the treatment system because the natural passive rate of LFG flow is low and would not be adequate for the Project to function. The vacuum placed on the LFG would be designed to draw the LFG mainly from within the County-owned portion of the former landfill, but would not increase the rate or volume of LFG emissions from the landfill.

The LFG collection headers would be connected to a condensate knockout vessel (i.e., sump) on the treatment system that would remove the moisture produced by condensation in the LFG. The discharge of the sump would connect to a filtration device whose primary function is to protect the blower from fragments of waste. The filtration device would connect to the blower, which would then discharge LFG to the media bed. The media bed would remove the non-methane organic compounds (NMOCs), which are volatile organic compounds (VOCs), from the LFG via absorption, and the methane and carbon dioxide (CO₂) fraction of the LFG would be vented to the atmosphere. As noted above, there would be no increase in the rate or volume of methane or CO₂ emissions from the landfill with Project implementation, because the LFG Extraction System would be designed with adequate vacuum only to move the LFG from the ground to the treatment system.

3.1.2 CONSTRUCTION

The LFG Extraction System would be constructed in one phase, estimated to extend from November 2017 through June 2018, or a construction period of approximately eight months, including one month to allow for unforeseen delays or other contingencies. Construction activities, including well drilling operations, would occur only within the allowed daytime construction hours and days (7:00 AM to 7:00 PM on weekdays; 9:00 AM to 6:00 PM on Saturdays); there would be no 24-hour drilling or other construction activity outside of these periods. It is expected that all construction activity would occur in eight-hour days from approximately 7:00 AM to 3:00 PM. All construction activities would be performed in compliance with the Los Angeles County

¹ The radius of influence is the maximum radial distance from the extraction well where the vacuum effect occurs through the compacted waste without causing surface air infiltration.

Department of Public Works' (LACDPW) *Standard Specifications for Public Works Construction* (Graybook).

Site Preparation

Site preparation would require up to approximately one month and would include mobilization of equipment to the site, surveying, minor surface grading, and receipt and staging of materials. As noted previously, the wells and treatment system would be situated within the relatively flat portions of the disturbance footprint, where minimal ground leveling during site preparation would be required and construction and subsequent maintenance access would be easily available. No trees would be removed or otherwise altered during construction of the LFG Extraction System. All construction equipment would be staged within the approximate 0.7-acre footprint, and all construction workers and County and agency staff would park along Sheriff Road or in nearby paved parking lots.

Installation

After site preparation is complete, the concrete pad placement (for the media bed treatment system), treatment system installation, extraction well drilling, pipeline connections (either aboveground or underground, to be determined through further LEA review), fencing, and electric line connection would occur and would require approximately five months. When the LFG Extraction System is fully installed, testing and commissioning would occur and require up to approximately one month. Therefore, the site preparation and LFG Extraction System installation is estimated to require approximately seven months. As noted above, the Project construction period is estimated to require up to eight months, which includes one month for contingencies, such as weather delays.

Media Bed Treatment System

As shown in Exhibits 3-1 and 3-3, the media bed treatment system would be installed on an approximate 20-foot by 10-foot concrete pad and be located within the relatively flat area near the northeast corner of the disturbance footprint. The treatment system would have components of various heights, up to approximately 10 feet in height, as shown on Exhibit 3-3. The majority of the treatment system would be constructed at a separate location (i.e., pre-fabricated) and then transported on a skid to the site and placed on the ready concrete pad, where the final components of the pre-fabricated treatment system would be assembled (such as the blower and motor). The treatment system would then be connected to the pipelines leading to the wells, and then commissioned to ensure proper operation.

Extraction Wells

Each of the up to five extraction wells would require approximately one day to drill, install, and finish, due to the shallow depths of the proposed extraction wells (i.e., 40 to 45 feet). Based on the landfill history and previous investigations performed within the former Cogen Landfill, the underlying waste material that would comprise the extraction well drilling spoils is anticipated to be classified as non-hazardous and would be disposed in a Class II landfill. However, prior to being accepted at a Class II landfill, a sample of the spoils would be laboratory tested to confirm it is not a hazardous material, and the results of this testing would accompany the first load of waste from the drilling operations (Arora 2015). The drilling spoils would be removed from within the disturbance footprint after the initial laboratory results are obtained; therefore, there would be temporary on-site stockpiling of spoils while the laboratory testing is being performed, on the order of one to a few days.

Electric Line Connection

There are two existing wooden utility poles near the Project site that could be used to connect electricity to the treatment system: (1) in the northwest corner of the Project site at the top of the slope and (2) across Sheriff Road along the southern boundary of the parking lot in the former Sybil Brand Institute immediately northeast of the site. With either option, the electric tie-in would be installed underground from the treatment system to the base of the utility pole. The latter option would be an off-site Project component. Southern California Edison (SCE) would determine the location and engineering requirements of the electricity connection, which is anticipated to occur in the first two weeks of the construction period. This is the sole utility required for Project operation. If the electricity connection is located at the utility pole to the east of Sheriff Road, demolition of the existing paving over an approximate 100-linear-foot distance (from the edge of the site to the pole) would be required. This off-site component would encompass approximately 200 square feet (sf). An approximate two-foot-wide by three-feet-deep trench encased in concrete would be constructed to contain the electricity line, and the ground surface would be returned to its existing condition (e.g., backfill, pavement, concrete curb) once the utility connection is complete. Construction activity within Sheriff Road, if necessary, would involve closure of one lane at a time and would include traffic control measures per the LACDPW Graybook.

Operation and Maintenance

The SCAQMD operational permitting would specify the monitoring requirements for the LFG Extraction System, including the frequency of maintenance visits, vent gas (i.e., discharge) sampling, and NMOC concentration testing. The discharge of the LFG Extraction System would be monitored via a flow meter, which would continuously register the system flow and be checked during regular maintenance visits by the County. The NMOC testing determines if the media in the treatment system has been exhausted, which is expected to happen between every three and six months. The media filter would be carbon-based (e.g., activated carbon, coconut shells) and would not be classified as a hazardous material. The exhausted media would be removed from the treatment system, tested to ensure it meets non-hazardous waste classification, and disposed as non-hazardous waste in a Class II municipal landfill.

It is anticipated that once-weekly maintenance visits by County staff would be required during the initial phase (approximately two months) after the LFG Extraction System is fully installed and commissioned, followed by one to two visits per month. In addition to maintenance visits, it is expected that the SCAQMD permit will require quarterly, semi-annual, and annual monitoring reports to be prepared and submitted by the County.

The SCAQMD permit will also define contingency actions if the treatment system or extraction wells are malfunctioning or if continued LFG migration is suspected based on system readings. In the event that LFG migration is suspected, maintenance visits would increase for a period of time until the necessary adjustments to the LFG Extraction System are implemented and proven effective.

County maintenance staff would travel to the site in a pick-up truck or other common County staff vehicle (i.e., not a large vehicle) and would park along the east side of Sheriff Road or in the paved parking lots located northeast of the landfill area. The staff vehicles or other maintenance activities would not block vehicle or pedestrian circulation along Sheriff Road or throughout this area of the Eastern Avenue Hill Complex.

The LFG Extraction System may be decommissioned at some future date if the off-site LFG migration from the County-owned property is within acceptable regulatory levels. However, because the eventuality of this scenario cannot be known and it may not occur, this IS/MND does not address decommissioning of the proposed LFG Extraction System. In the event the LFG Extraction System is proposed to be decommissioned, that activity would require separate CEQA review and clearance.

3.2 LANDFILL GAS MONITORING PLAN

As discussed in Section 2.2.2 above, the LEA approved the County's LFG Monitoring Plan in December 2015. The approved Monitoring Plan includes the installation of two new LFG monitoring wells at the top of the approximate 75-foot-high slope within the northwestern portion of the Project site, and, subsequently, monthly monitoring and reporting of the LFG concentrations at the two new monitoring well locations, four existing monitoring well locations, and at surface locations within the northern portion of the Project site. These activities are described further below.

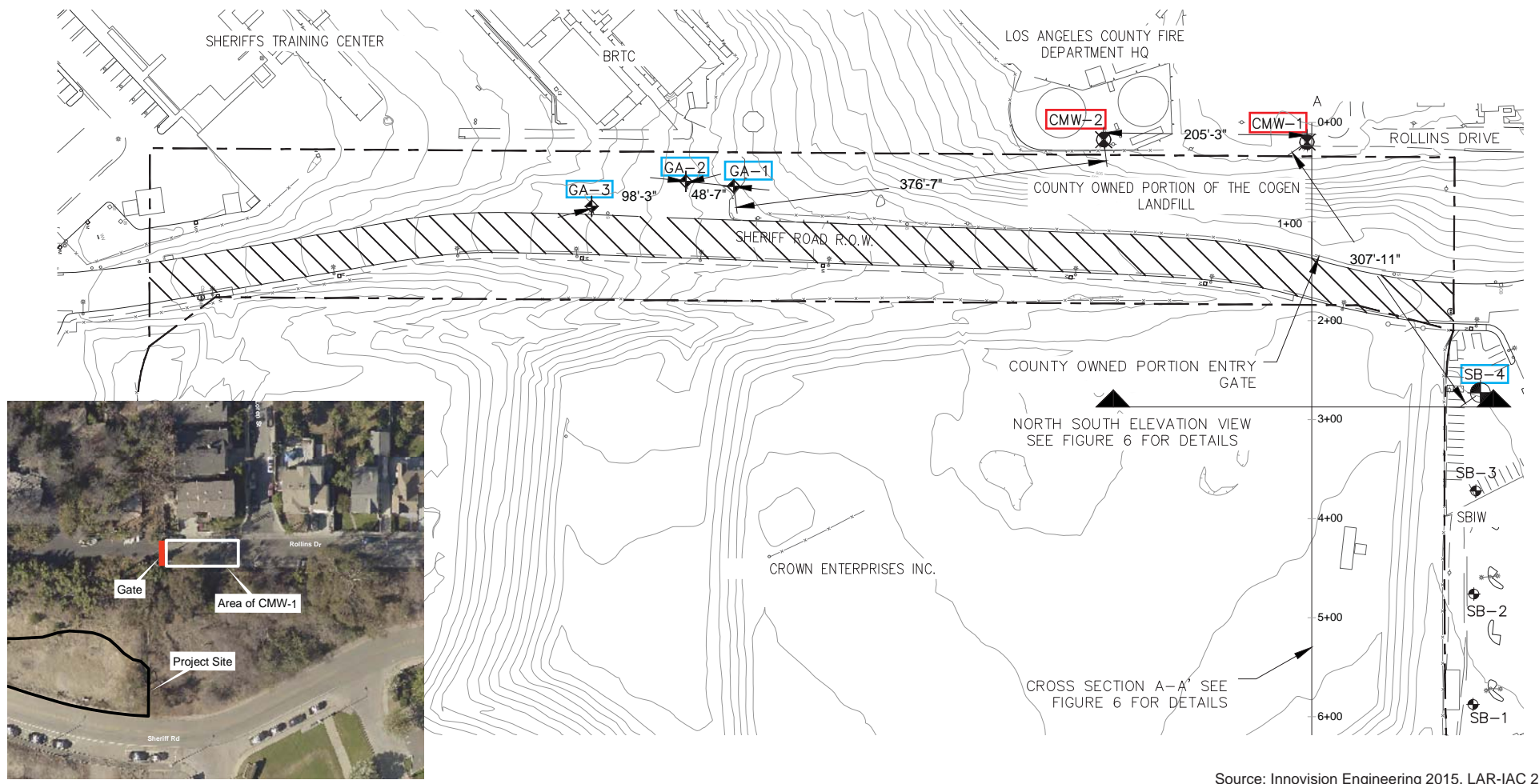
3.2.1 NEW MONITORING WELLS

Two new monitoring wells would be installed to the northwest and west of the County-owned portion of the landfill to monitor subsurface LFG migration, if any. The new monitoring wells would be situated approximately 374 apart. The locations of the new monitoring wells, identified as CMW-1 and CMW-2, and the existing monitoring wells to be monitored by the County, are depicted on Exhibit 3-4, Existing and Proposed Monitoring Wells for the County-Owned Portion of Cogen Landfill. As shown, CMW-1 would be located at the southern end of Rollins Drive, in the public right-of-way; and CMW-2 would be located on the asphalt pad between the water tanks on the LACFD Headquarters property. The new monitoring wells have been situated based on the constraints of topography (i.e., steep western slope), limits of landfill refuse on the west side of the Project site, the underlying geology (i.e., depth and dip of the underlying bedrock), existing land uses, and accessibility for both installation and monitoring. Exhibit 3-5, Project Area Cross Section, illustrates a "slice" of the Project area from west (at Rollins Drive) to east (to the central portion of the landfill). Exhibit 3-6, Proposed Monitoring Well Details, depicts the subsurface details of the new wells and well covers. The installation and monitoring of the new wells is described further below.

New Monitoring Well Specifications

The new monitoring wells, CMW-1 and CMW-2, would both extend to a depth of approximately 90 feet below ground surface (bgs). As shown on Exhibit 3-6, each monitoring well would have three probes, or three separate lengths of ¾-inch-diameter well casing: (1) a shallow probe having perforations in the well casing (i.e., screens) from 7 feet to 12 feet bgs, (2) a medium probe having 5 feet of perforations at half the well depth, and (3) a deep probe having 5 feet of perforations near the bottom of the well (IE 2015). Table 3-1, Proposed Monitoring Well Specifications, summarizes the well configuration details.

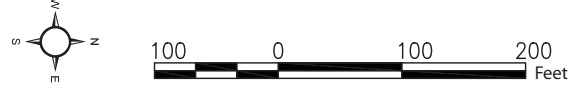
- ◆ GA-2 - SCS BUILDING PROBES (YEAR: 2013)
- ⊗ CMW-1 - PROPOSED MONITORING WELLS
- ⊗ SB-4 - SBIW PROBES (YEAR: UNKNOWN)
- ▭ PROPOSED MONITORING WELL
- ▭ EXISTING MONITORING WELL



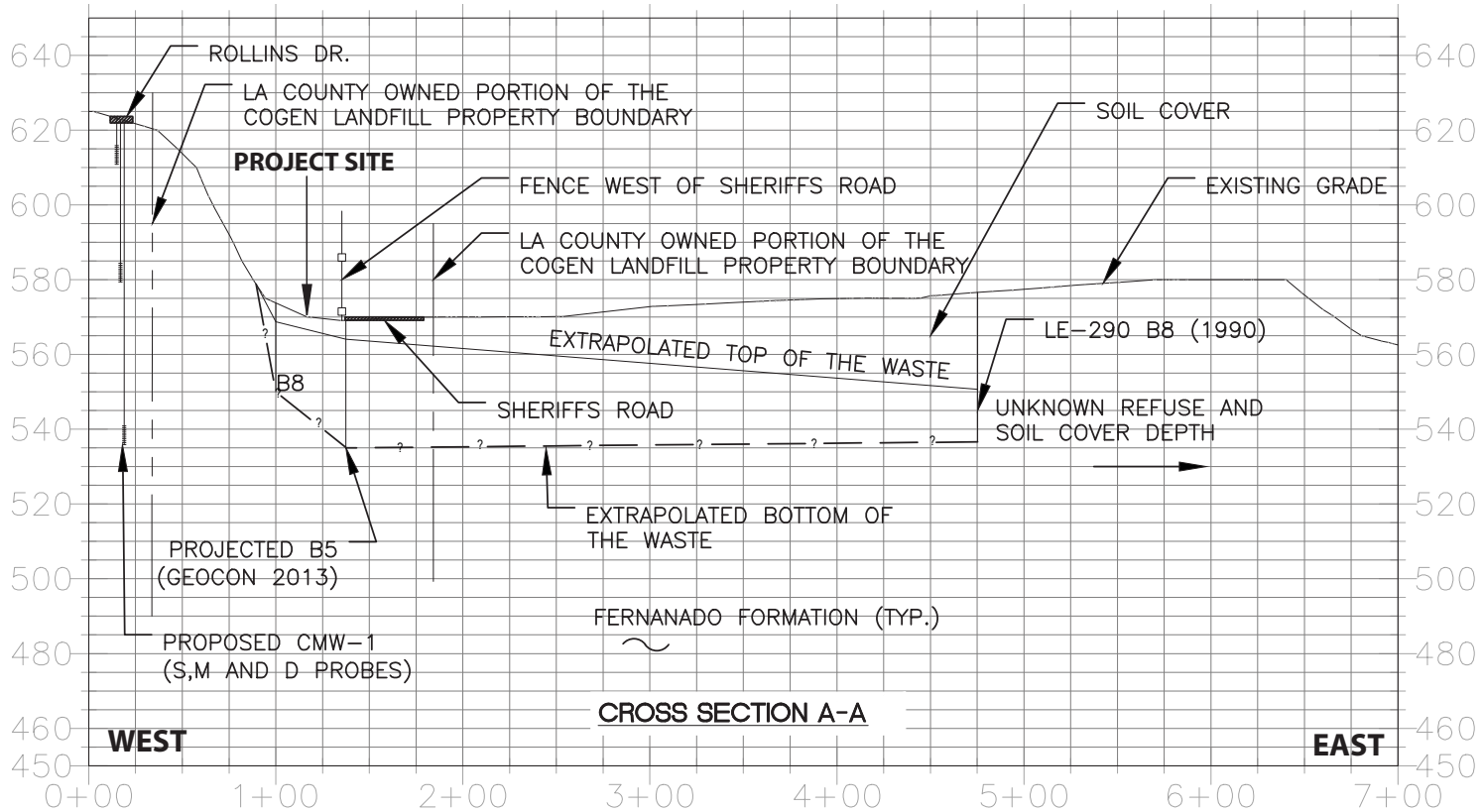
Source: Invision Engineering 2015, LAR-IAC 2014

Existing and Proposed Monitoring Wells for the County Owned Portion of the Cogen Landfill Exhibit 3-4

Former Cogen Landfill Gas Extraction System and Monitoring Plan Project



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Source: Innovision Engineering 2015

Project Area Cross-Section

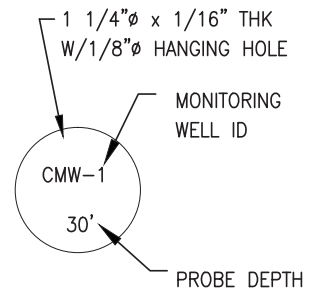
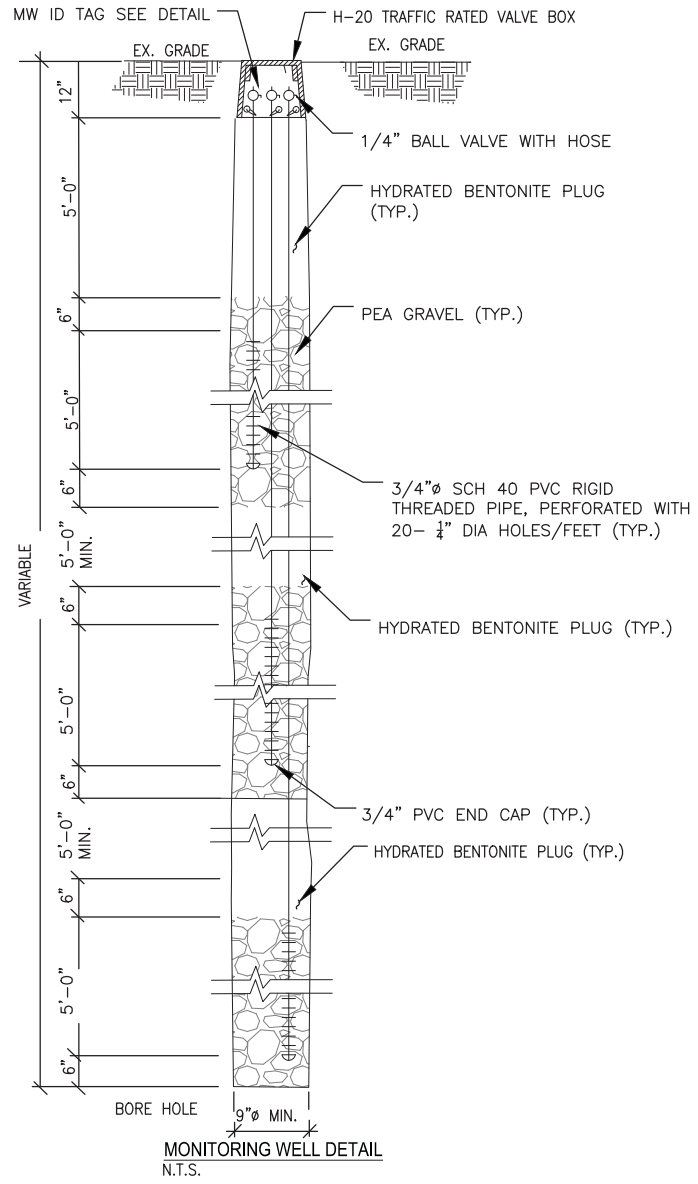
Exhibit 3-5

Former Cogen Landfill Gas Extraction System and Monitoring Plan Project



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MONITORING WELL TAG DETAIL

Source: Innovision Engineering 2015

Proposed Monitoring Well Details

Former Cogen Landfill Gas Extraction System and Monitoring Plan Project

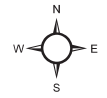


Exhibit 3-6



**TABLE 3-1
PROPOSED MONITORING WELL SPECIFICATIONS**

Monitoring Well I.D.	Surface Elevation (feet above msl)	Probes	Probe Screen Depth (feet bgs)
CMW-1	623	Shallow	7-12
		Medium	45-50
		Deep	82-87
CMW-2	617	Shallow	7-12
		Medium	42-47
		Deep	76-81
msl: mean sea level; bgs: below ground surface Source: IE 2015			

Installation

The two new monitoring wells would be installed in April 2017, prior to and separate from construction of the LFG Extraction System that would begin in November 2017. Each of these monitoring wells is anticipated to require one day to drill, install, and finish. As described for the extraction wells, drilling operations would occur only within the allowed daytime construction hours and days (7:00 AM to 7:00 PM on weekdays; 9:00 AM to 6:00 PM on Saturdays); more specifically, it is expected that monitoring well installation would occur within an eight-hour day from approximately 7:00 AM to 3:00 PM. There would be no 24-hour drilling or other construction activity related to monitoring well installation outside of the allowed periods.

The new monitoring wells would be installed using a track-mounted hollow stem auger. Hollow stem auger drilling is a rotary drilling method where a bit is located on the bottom of the augers to drill and maintain an open borehole, and the continuous flights on the augers deliver the displaced soils (i.e., spoils) to the surface and the auger spins downward. Undisturbed soils would be collected from core samplers that fill as the auger progresses into the ground. The soil cores would be analyzed and logged to document lithology at each monitoring well location. As shown on Exhibit 3-5, the space around the perforated section of each probe will be filled with gravel to allow the entry of gas. The probes would be constructed of ¾-inch Schedule 40 Polyvinyl Chloride (PVC) pipe. A hydrated bentonite (a type of clay) seal would be placed on top of, and in between, the screened sections. The top of the probes would be fitted with petcocks (a small shut-off valve) and the monitoring well would be protected by a traffic-rated well box. The ground surface around the circular well box would be finished with concrete or asphalt.

Due to the shallow depth of the monitoring wells, a relatively small amount of spoils would be generated – estimated at approximately four cubic yards (cy) per well location. Spoils during well drilling are generally collected as they accrue at the ground level around the auger. The spoils from the monitoring well installation would be shoveled into a small truck (i.e., pickup truck or small haul truck) to be exported off-site for disposal. A total of one truck trip per monitoring well location is expected. The monitoring well drilling spoils are anticipated to be classified as non-hazardous and would be disposed in a Class II landfill.

Within the eight-hour workday, it is expected that five to six hours would include drill rig operation. All workers and related equipment would be staged immediately around the monitoring well location during the one-day installation period. Installation of well location on Rollins Drive would require an Encroachment Permit issued by the County of Los Angeles. Traffic flow around this well location would be managed with traffic control devices such as cones, signs, and/or flagmen, to be specified in the Traffic Control Plan required for the Encroachment Permit.

Within two weeks of the monitoring well installation, the initial monthly reading of the probes in the newly installed wells would occur. If total organic compounds (TOC) measured as methane is found in exceedance of five percent, the probe would be noted for exceedance and would be monitored again within a week of the initial readings. Long-term monitoring of the two new wells is discussed below.

The new monitoring wells may be decommissioned at some future date. However, similar to the discussion for the treatment system, because the eventuality of this cannot be known and may not occur, this IS/MND not address decommissioning of the new wells. In the event the LFG monitoring wells are proposed to be decommissioned, that activity would require separate CEQA review and clearance.

3.2.2 EXISTING MONITORING WELLS

There are a total of four existing LFG monitoring wells, identified on Exhibit 3-4 as GA-1, GA-2, GA-3, and SB-4, that would be monitored by the County pursuant to the approved Monitoring Plan. These four wells, in addition to the two new wells, would complete the network of monitoring wells, to detect off-site LFG migration from the County-owned portion of the landfill, if any, prior to and during operation of the LFG Extraction System.

Specifically, wells GA-1 through GA-3, located in the central portion of the site, would be able to monitor any LFG migration from the site towards the south. Existing well SB-4, located immediately northeast of the site, would be able to monitor any LFG migration towards the northeast. These four well locations have historically been, and would continue to be, monitored by the LEA. However, under the approved Monitoring Plan, the County would separately monitor these wells. The County implementation of the approved Monitoring Plan would involve no physical changes to these four well locations. The potential physical environmental effects of utilizing these existing wells as part of the Monitoring Plan is limited to the monthly vehicle trip to conduct the monitoring, discussed below.

3.2.3 LFG MONITORING AND REPORTING

Pursuant to the approved LFG Monitoring Plan, monthly readings of the six monitoring wells (two new and four existing) as well as surface locations within the northern portion of the Project site would be collected by County staff, or the County's consultant. The readings would be taken using a Landtec GEM2000, a portable landfill gas monitor. All locations would be monitored during a once-monthly visit. A monitoring report would be prepared and shared with the LEA within two weeks of conducting each monitoring visit.

3.3 ANTICIPATED PROJECT APPROVALS

This IS/MND is intended to serve as the primary environmental document pursuant to CEQA for actions associated with the Former Cogen Landfill Gas Extraction System and Monitoring Plan Project, including discretionary approvals required to implement the Project. The County, as the lead agency, is responsible for preparing the IS/MND and has the principal responsibility for carrying out or approving the Project. In addition, this IS/MND is the primary reference document for the formulation and implementation of a mitigation monitoring and reporting program for the Project, in accordance with Section 15097 of the State CEQA Guidelines.

The County of Los Angeles Board of Supervisors, acting on behalf of the County, may adopt the IS/MND if it finds, on the basis of the whole Project record, that there is no substantial evidence that the Project would have a significant effect on the environment. Discretionary actions subject to County of Los Angeles Board of Supervisors review and approval include, but are not limited to:

- Adoption of the IS/MND,
- Approval of the Former Cogen Landfill Gas Extraction System, and
- Approval of the LEA-approved *Revised Landfill Gas Monitoring Work Plan, County-Owned Portion of the Cogen Landfill, Monterey Park, California (SWIS No. 19-AA-0581)*.

The IS/MND also provides environmental information to responsible agencies, trustee agencies, and other public agencies that may be required to grant approvals and permits or coordinate with the County of Los Angeles as part of Project implementation. These agencies include, but are not limited to, those listed below. Table 3-2, Other Approvals and Requirements, lists all other permits or approvals required for the Project.

**TABLE 3-2
OTHER APPROVALS AND REQUIREMENTS**

Agency	Discretionary Approval Required
South Coast Air Quality Management District	Permit to Construct the Landfill Gas Extraction System and Permit to Operate the Landfill Gas Extraction System
Southern California Edison	Location and requirements for electricity line connection to Landfill Gas Extraction System
County of Los Angeles	Encroachment permit for construction activity in public right-of-way (Rollins Drive)

SECTION 4.0 ENVIRONMENTAL CHECKLIST FORM

This section includes the completed CEQA environmental checklist form, as provided in Appendix G of the State CEQA Guidelines, as well as substantiation and clarification for each checklist response. The checklist form is used to assist in evaluating the potentially significant environmental impacts of the Former Cogen Landfill Gas Extraction System and Monitoring Plan Project and identifies whether the Project is expected to have potentially significant impacts.

- 1. Project Title:** Former Cogen Landfill Gas Extraction System and Monitoring Plan Project
- 2. Lead Agency Name and Address:** County of Los Angeles
900 South Fremont Avenue, 5th Floor
Alhambra, California 91803
- 3. Contact Person:** Mr. Omar Nabahani, P.E., CCM, LEED AP
onabahani@dpw.lacounty.org
- 4. Project Location:** The Project site is (1) the 4.6-acre County-owned portion of the former Cogen Landfill, located in the westernmost portion of the City of Monterey Park, Los Angeles County and (2) two discrete monitoring well locations in the unincorporated County community of City Terrace.
- 5. Project Sponsor's Name and Address:** County of Los Angeles Department of Public Works
900 South Fremont Avenue, 5th Floor
Alhambra, California 91803
- 6. General Plan Designation²:** Employment/Technology (E/T); Public (P)(CMW-2)
- 7. Zoning:** Office Professional (O-P); Institutional (I)(CMW-2)
- 8. Description of Project:** The Project would involve the installation and operation of an LFG Extraction System, composed of a media bed treatment system connected by piping to up to five extraction wells, which would treat the extracted LFG within the landfill boundaries and thereby reduce off-site migration of LFG from the County-owned portion of the former Cogen Landfill. There is the potential for an off-site electrical connection, if the Project is required to connect to the existing utility pole to the east across Sheriff Road. In addition to the LFG Extraction System, two new LFG monitoring wells would be installed at the top of the approximate 75-foot-high slope within the northwestern portion of the landfill. The Monitoring Plan would involve once-monthly LFG sampling of (1) the two new LFG monitoring well locations, (2) four existing LFG monitoring well locations, and (3) surface locations with subsequent reporting to the Local Enforcement Agency.
- 9. Surrounding land uses and setting:** The landfill portion of the Project site is situated within the Eastern Avenue Hill Complex, which includes multiple facilities for several County of Los Angeles departments and the former Blanchard and Cogen Landfills (see Exhibit 2-2). There are single- and multi-family residential uses to the west and northwest of the Project site in the unincorporated community of City Terrace. The Project site is traversed by the approximate 45-foot-wide Sheriff Road. To the east of Sheriff Road, the Project site is comprised of vacant, bare to sparsely vegetated land that abuts the remainder of the former landfill. To the west of Sheriff Road, the northern two-thirds of the Project site is comprised of

² Monitoring well location CMW-1 is within a public right-of-way and has no land use designation or zoning.

vacant, partially vegetated land. The southern third of the site overlaps a portion of the LACSD's BRTC.

10. Other public agencies whose approval may be required:

- California Department of Public Health (DPH)
- South Coast Air Quality Management District (SCAQMD)

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a “Less Than Significant with Mitigation”, as indicated on the following pages.

- | | |
|--|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forest Resources |
| <input type="checkbox"/> Air Quality | <input checked="" type="checkbox"/> Biological Resources |
| <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology and Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards and Hazardous Materials |
| <input type="checkbox"/> Hydrology and Water Quality | <input type="checkbox"/> Land Use and Planning |
| <input type="checkbox"/> Mineral Resources | <input checked="" type="checkbox"/> Noise |
| <input type="checkbox"/> Population and Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Utilities and Service Systems | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION:

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.


Signature of Lead Agency Representative

Amir M. Alam
Printed name

1/12/17
Date

Los Angeles County
Agency

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

- (1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- (2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- (3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
- (4) “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from “Earlier Analyses,” as described in (5) below may be cross-referenced.)
- (5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA processes, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063I(3)(D) [of the State CEQA Guidelines]). In this case, a brief discussion should identify the following:
 - a. Earlier Analysis Used. Identify and state where they are available for review.
 - b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c. Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- (6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- (7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

(8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

(9) The explanation of each issue should identify:

- a. the significance criteria or threshold, if any, used to evaluate each question; and
- b. the mitigation measure identified, if any, to reduce the impact to less than significance.

4.1 <u>AESTHETICS</u>	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IMPACT ANALYSIS

Regulatory Requirements

None required.

Impact Discussion

a) **Would the project have a substantial adverse effect on a scenic vista?**

No Impact. The *Monterey Park General Plan* does not identify any scenic corridors or viewsheds within City boundaries. Open space areas are identified on Figure R-1 of the General Plan's Resources Element (Monterey Park 2001). Although the City of Monterey Park has a number of parks and historic landmarks that may represent unique scenic resources, none are located in the Project site vicinity. The Project site is primarily surrounded by the former Cogen and Blanchard Landfills as well as institutional uses associated with LACSD and LACFD training and/or administrative facilities. The new monitoring well location in Rollins Drive (CMW-1) is adjacent to multi- and single-family residential land uses to the west and northwest, the landfill to the east, and institutional uses to the south. There would be no impact related to a scenic vista and no mitigation is required.

b) **Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?**

No Impact. The nearest designated or eligible State scenic highway is State Route (SR) 110 north of mile marker 25.7 (near the junction of I-5), designated the Arroyo Seco Historic Parkway, located approximately 3.5 miles to the northwest of the Project site (Caltrans 2012). The Project site and the new monitoring well locations would not be visible from SR-110 due to distance, topography, and intervening development. There are no unique features, such as heritage or other unique trees, rock outcroppings, historic sites, or other landmarks on or near the site. As such, there would be no impact related to views from a scenic highway and no mitigation is required.

c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant Impact. Based on site reconnaissance and review of aerial photographs, the Project site would be visible primarily by motorists and pedestrians along the adjacent segment of Sheriff Road. Distant views of the site would be available from further to the east of the site within the Eastern Avenue Hill Complex. Views of the site from the residential area at the top of the slope on the northwest corner of the site are obstructed by mature vegetation and low walls.

The visual character of the Project site would be altered by the presence of the approximate 20-foot-long by 10-foot-wide by 10-foot-tall media bed treatment system, the individual extraction wellheads, and the pipelines connecting the extraction wells to the treatment system, if constructed aboveground. The media bed treatment system would be the largest and most visible component of the Project, although no Project components would be substantively visible beyond the immediately adjacent area. A rendering of the treatment system is presented in Exhibit 3-3 in Section 3.0, Project Description. As shown, the system is small-scale and is compact in design. While the LFG Extraction System would be a visible alteration to the currently vacant condition of the site, because the site is not comprised of open space of an appreciable scenic quality and is located amongst institutional land uses, the Project would not be considered to substantially degrade the visual character of the site or surroundings.

Views of the equipment associated with new monitoring well installation would be visible by the surrounding population and passerby for one day at each of the two locations. Once installed, the monitoring well locations would not be visible above the surface. Views of the truck and staff performing the monthly monitoring would be visible to the surrounding population and passerby. There would be no impact to visual character related to the presence of construction equipment and, subsequently, monitoring staff and equipment because of the very short time period (one day or less) and infrequent monitoring interval (once monthly).

There would be less than significant impacts to visual character and no mitigation is required.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Impact. Project-related activities would not introduce new sources of light or glare to the Project site or the surrounding area. No activities are proposed during the nighttime hours involving light or glare sources, and no new light sources or reflective materials are proposed. Therefore, there would be no impact and no mitigation is required.

MITIGATION MEASURES

There would be no significant impacts related to aesthetics; therefore, no mitigation measures are required.

4.2	<u>AGRICULTURE AND FOREST RESOURCES</u>	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:					
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104[g])?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IMPACT ANALYSIS

Regulatory Requirements

None required.

Impact Discussion

- a) **Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**
- b) **Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?**
- c) **Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code, Section 12220[g]), timberland (as defined by Public Resources Code, Section 4526), or timberland zoned Timberland Production (as defined by Government Code, Section 51104[g])?**
- d) **Would the project result in the loss of forest land or conversion of forest land to non-forest use?**

e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

The Project site and surrounding area do not support any agricultural uses, forest lands, or timberland production activities. Review of maps by the California Department of Conservation Farmland Mapping and Monitoring Program shows that the site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (FMMP 2011). The City of Monterey Park land use designation for the Project site is Employment/Technology (E/T). At present, the zoning for Project site is Office Professional (O-P). Because the zoning ordinance is not currently consistent with the General Plan, the City of Monterey Park reports that, to fully implement land use policy for the E/T category, among others, amendments to the zoning ordinance for a new zone district and corresponding regulations are necessary (Monterey Park 2014). In addition, there are no Williamson Act contracts applicable to the Project site.

Therefore, no conversion of farmland or forest land or conflict with agricultural or forest zoning would occur with the Project. Because the Project is not growth-inducing, the Project would not indirectly result in conversion of agriculture or forest lands. There would be no impact to agriculture and forest resources.

MITIGATION MEASURES

There would be no impacts to agriculture and forest resources; therefore, no mitigation measures are required.

4.3 <u>AIR QUALITY</u>	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or Projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IMPACT ANALYSIS

Regulatory Setting

The Project site is located in the City of Monterey Park and within the Los Angeles County portion of the South Coast Air Basin (SoCAB). For air quality regulation and permitting, it is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). Both the State and the USEPA have established health-based Ambient Air Quality Standards (AAQS) for air pollutants, which are known as “criteria pollutants”. The AAQS are designed to protect the health and welfare of the populace within a reasonable margin of safety. The federal and State AAQS are shown in Table 4-1, California and National Ambient Air Quality Standards.

**TABLE 4-1
CALIFORNIA AND NATIONAL AMBIENT AIR QUALITY STANDARDS**

Pollutant	Averaging Time	California Standards	Federal Standards	
			Primary ^a	Secondary ^b
O ₃	1 Hour	0.09 ppm (180 µg/m ³)	–	–
	8 Hour	0.070 ppm (137 µg/m ³)	0.075 ppm (147 µg/m ³)	Same as Primary
PM ₁₀	24 Hour	50 µg/m ³	150 µg/m ³	Same as Primary
	AAM	20 µg/m ³	–	Same as Primary
PM _{2.5}	24 Hour	–	35 µg/m ³	Same as Primary
	AAM	12 µg/m ³	12 µg/m ³	Same as Primary
CO	1 Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	–
	8 Hour	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	–
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)	–	–
NO ₂	AAM	0.030 ppm (57 µg/m ³)	0.053 ppm (100 µg/m ³)	Same as Primary
	1 Hour	0.18 ppm (339 µg/m ³)	0.100 ppm (188 µg/m ³)	–
SO ₂	24 Hour	0.04 ppm (105 µg/m ³)	–	–
	3 Hour	–	–	0.5 ppm (1,300 µg/m ³)
	1 Hour	0.25 ppm (655 µg/m ³)	0.075 ppm (196 µg/m ³)	–
Lead	30-day Avg.	1.5 µg/m ³	–	–
	Calendar Quarter	–	1.5 µg/m ³	Same as Primary
	Rolling 3-month Avg.	–	0.15 µg/m ³	
Visibility Reducing Particles	8 hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles (0.07 per km – ≥30 miles for Lake Tahoe)	No Federal Standards	
Sulfates	24 Hour	25 µg/m ³		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m ³)		

O₃: ozone; ppm: parts per million; µg/m³: micrograms per cubic meter; PM₁₀: respirable particulate matter with a diameter of 10 microns or less; AAM: Annual Arithmetic Mean; PM_{2.5}: fine particulate matter with a diameter of 2.5 microns or less; CO: carbon monoxide; mg/m³: milligrams per cubic meter; NO₂: nitrogen dioxide; SO₂: sulfur dioxide; km: kilometer; –: No Standard.

^a *National Primary Standards*: The levels of air quality necessary, within an adequate margin of safety, to protect the public health.

^b *National Secondary Standards*: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

Note: More detailed information in the data presented in this table can be found at the CARB website (www.arb.ca.gov).

Source: CARB 2015a.

Regional air quality is defined by whether the area has attained or not attained State and federal air quality standards, as determined by air quality data from various monitoring stations. Areas that are considered in “nonattainment” are required to prepare plans and implement measures that will bring the region into “attainment”. When an area has been reclassified from nonattainment to attainment for a federal standard, the status is identified as “maintenance”, and there must be a plan and measures established that will keep the region in attainment for the following ten years.

For the California Air Resources Board (CARB), an “Unclassified” designation indicates that the air quality data for the area are incomplete and there are no standards to support a designation of attainment or nonattainment. Table 4-2, Designations of Criteria Pollutants in the South Coast Air Basin, summarizes the attainment status of the SoCAB for the criteria pollutants.

**TABLE 4-2
DESIGNATIONS OF CRITERIA POLLUTANTS IN THE SOUTH COAST AIR BASIN**

Pollutant	State	Federal
O ₃ (1 hour)	Nonattainment	No Standard
O ₃ (8 hour)		Extreme Nonattainment
PM10	Nonattainment	Attainment/Maintenance
PM2.5	Nonattainment	Moderate Nonattainment
CO	Attainment	Attainment/Maintenance
NO ₂	Attainment	Attainment/Maintenance
SO ₂	Attainment	Attainment
Lead	Attainment	Attainment/Nonattainment*
All others	Attainment/Unclassified	No Standards

O₃: ozone; PM10: particulate matter 10 microns or less in diameter; PM2.5: particulate matter 2.5 microns or less in diameter; CO: carbon monoxide; NO₂: nitrogen dioxide; SO₂: sulfur dioxide.

* The Los Angeles County portion of the SoCAB is designated nonattainment for lead; the remainder of the SoCAB is designated attainment.

Source: CARB 2015b

Landfill Gas Emissions Modeling

Existing pollutant emissions are comprised of the LFG that migrates through the surface of the soil. As discussed in Section 3.0 of this IS/MND, the LFGs of concern at Cogen Landfill include carbon dioxide and methane. The quantities or rates of emissions cannot be measured because of the dispersed and unconfined nature of the emissions sources. However, concentrations of pollutants can be measured in the air above the ground or in the existing monitoring wells. Therefore, emission rates are estimated through modeling.

In order to design the LFG Extraction System, the LFG generation potential of the landfill was estimated, using the USEPA’s Landfill Gas Emissions Model (LandGEM) Version 3.02 (Andersen Environmental 2014). Because there is no method to precisely determine the amount of waste under the County-owned portion of the landfill, as compared to the total landfill, the modeling was performed for the entire landfill. Also, because the former landfill operated and closed prior to the enactment of modern solid waste regulations, the amount of available information on the landfill is limited. Similarly, there are no topographic maps of the area that pre-date the former landfill to determine the precise depth and extent of refuse in the landfill. However, over the last approximately 40 years, numerous studies have been performed on different portions of the landfill. These studies had various objectives including, but not limited to, groundwater well installation, geologic and geotechnical explorations, and LFG sampling. The LFG Extraction System modeling is based on review of all publicly available studies and other documentation,

focusing on the studies completed in and around the County-owned portion of the landfill. Data reviewed included records from the local enforcement agency (LEA), the SCAQMD, and the Los Angeles Regional Water Quality Control Board (RWQCB) as well as documents supplied by the County (Andersen Environmental 2014).

The LandGEM model requires the following data to estimate the LFG generation potential: (1) total waste tonnage, (2) age of waste, and (3) type of waste. Conservative assumptions regarding data inputs based on available data and known landfill operating practices at that time were made wherever applicable to provide a conservative estimate of current and future LFG generation. The primary assumptions include:

1. The former landfill is believed to contain between one to two million cubic yards (cy) of municipal solid waste; therefore, LFG generation assumed two million cy of solid waste. In the early days of landfilling, only 700 to 800 pounds per cubic yard (lbs/cy) of compaction were possible; therefore, LFG generation assumed 800 lbs/cy as a density factor. This leads to an estimated total of 800,000 tons of solid waste.
2. The former landfill operated from 1951 to 1957, and was closed in 1958. The total waste tonnage was divided by number of years of operation (7 years) to estimate amount of waste placed in the landfill per calendar year, resulting in approximately 115,000 tons/year.
3. The former landfill was permitted to accept general household waste, commercial rubbish and refuse, industrial wastes (liquid or solid), tank bottoms, and rotary muds (generated from mud-rotary drilling used in oil exploration). Based on this, the LFG model conservatively assumed a low generation rate constant for arid conditions and a methane concentration of 50 percent (Andersen Environmental 2014).

It is noted that LFG generation from a former landfill peaks right after its closure; however, LFG generation never reaches zero (i.e., a landfill will always produce some LFG) due to the continued decomposition of the materials. The older the waste, the less LFG generation potential it has. Because the waste at the former Cogen Landfill is approximately 60 years old, the landfill passed its peak LFG generation rate more than 5 decades ago (Andersen Environmental 2014).

The results of the modeling show that the present LFG generation potential of the entire landfill is approximately 100 standard cubic feet a minute (scfm). However, only a fraction of this estimated total LFG generation is from the 4.6-acre portion of the County-owned property, which is relatively small (approximately 12 percent) compared to the total landfill area of 40 acres.

Regulatory Requirements

RR AQ-1 All construction activities will be conducted in compliance with all applicable South Coast Air Quality Management District (SCAQMD) rules and permitting requirements, including but not limited to:

- SCAQMD Rule 403, Fugitive Dust, for controlling fugitive dust and avoiding nuisance. Compliance with this rule will reduce short-term particulate pollutant emissions. Contractor compliance with Rule 403 requirements will be mandated in the contractor's specifications.
- SCAQMD Rule 402, Nuisance, which states that a Project will not "discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the

comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property”.

- SCAQMD Rule 201, Permit to Construct, requires a permit prior to the installation of any equipment “the use of which may cause the issuance of air contaminants . . .”. SCAQMD Regulation II, List and Criteria Identifying Information Required of Applicants Seeking a Permit to Construct from the South Coast Air Quality Management District, provides the requirements for the application for a Permit to Construct. SCAQMD Rule 203, Permit to Operate, requires a permit following the completion of construction permitted by the Permit to Construct.

Impact Discussion

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

No Impact. The Project site is located in Los Angeles County, in the South Coast Air Basin (SoCAB), where the SCAQMD is the agency principally responsible for comprehensive air pollution control. A regional agency, the SCAQMD works directly with the Southern California Association of Governments (SCAG), County transportation commissions, and local governments, and cooperates actively with all federal and State government agencies. The SCAQMD develops rules and regulations; establishes permitting requirements for stationary sources; inspects emissions sources; and enforces such measures through educational programs or fines, when necessary.

The SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources. It has responded to this requirement by preparing a sequence of Air Quality Management Plans (AQMPs). An AQMP establishes a program of rules and regulations directed at attaining the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). The regional plan applicable to the Project is the SCAQMD’s AQMP.

On December 7, 2012, the SCAQMD adopted the 2012 AQMP, which is a regional and multi-agency effort (SCAQMD, CARB, SCAG, and USEPA). The 2012 AQMP incorporates the latest scientific and technical information and planning assumptions, including the 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS); updated emission inventory methods for various source categories; and SCAG’s latest growth forecasts (SCAQMD 2013; SCAG 2012). On December 20, 2012, the 2012 AQMP was submitted to CARB and the USEPA for concurrent review and approval for inclusion in the State Implementation Plan (SIP) (SCAQMD 2013a). The 2012 AQMP was approved by the CARB on January 25, 2013 (CARB 2014b). It should also be noted that the SCAQMD released a Revised Draft 2016 AQMP in late October 2016. Adoption by the SCAQMD Governing Board is anticipated in April 2017. The 2016 AQMP will develop integrated strategies and measures to meet certain National Ambient Air Quality Standards (NAAQS).

The main purpose of an AQMP is to bring an area into compliance with the requirements of federal and State air quality standards. For a project to be consistent with the AQMP, the pollutants emitted from the project should not (1) exceed the SCAQMD CEQA air quality significance thresholds or (2) conflict with or exceed the assumptions in the AQMP. As shown in Threshold 4.3(b) below, pollutant emissions from the Project would be less than the SCAQMD thresholds and would not result in a significant impact. Further, the Project, being the installation and

operation of a landfill gas collection system, would not result in development that may not have been anticipated in the AQMP. No conflict with the 2012 AQMP would occur with the Project, and there would be no impact.

b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less than Significant Impact. The SCAQMD establishes significance thresholds to assess the regional impact of Project-related air pollutant emissions in the SCAQMD. Table 4-3, SCAQMD Criteria Pollutant Mass Emissions Significance Thresholds (lbs/day), summarizes the SCAQMD's mass emissions thresholds, which are presented for both long-term operational and short-term construction emissions. A Project with emissions rates below these thresholds is considered to have a less than significant effect on air quality.

**TABLE 4-3
SCAQMD CRITERIA POLLUTANT SIGNIFICANT MASS EMISSIONS
SIGNIFICANCE THRESHOLDS (LBS/DAY)**

Criteria Pollutant	Construction	Operation
Volatile Organic Compounds (VOC)	75	55
Oxides of Nitrogen (NOx)	100	55
Carbon Monoxide (CO)	550	550
Oxides of Sulfur (SOx)	150	150
Particulate Matter (PM10)	150	150
Particulate Matter (PM2.5)	55	55
lbs/day: pounds per day		
Source: SCAQMD 2015.		

Construction Impacts – Regional Air Quality

The SCAQMD has established methods to quantify air emissions associated with construction activities such as air pollutant emissions generated by operation of on-site construction equipment; fugitive dust emissions related to trenching and earthwork activities; and mobile (tailpipe) emissions from construction worker vehicles and haul/delivery truck trips. Emissions would vary from day to day, depending on the level of activity; the specific type of construction activity occurring; and, for fugitive dust, prevailing weather conditions.

A construction-period mass emissions inventory was compiled based on an estimate of construction equipment as well as scheduling and Project phasing assumptions. More specifically, the mass emissions analysis takes into account the following:

- Combustion emissions from operating on-site stationary and mobile construction equipment;
- Fugitive dust emissions from demolition, site preparation, and grading phases; and
- Mobile-source combustion emissions and fugitive dust from worker commute and truck travel.

Emissions were calculated using the California Emissions Estimator Model (CalEEMod) emissions inventory model (SCAQMD 2013b). CalEEMod is a computer program accepted by the SCAQMD that can be used to estimate anticipated emissions associated with land development

projects in California. CalEEMod has separate databases for specific counties and air districts, and the Los Angeles County database was used for the Project.

The mass emissions thresholds (see Table 4-3) are based on the rate of emissions (i.e., pounds of pollutants emitted per day). Therefore, the quantity, duration, and the intensity of construction activities are important in assuring analysis of worst case (i.e., maximum daily emissions) scenarios. Construction of two monitoring wells would occur for two days in April 2017. The LFG Extraction System construction would take approximately eight months, which includes one month to allow for unforeseen delays or other contingencies. Site preparation and grading activities for the LFG Extraction System would begin in November 2017 and would require approximately four weeks. This activity would be followed by demolition of existing paving, which would begin in December 2017 for two weeks. Infrastructure and utilities work (electrical line connection) would begin in December 2017 and last for approximately two months. The remaining components of the LFG Extraction System construction, including extraction well drilling, pipeline connections, and assembly of the media bed treatment system, would begin in February 2018 and continue through June 2018.

Maximum daily emissions during the peak work day are shown in Table 4-4, Estimated Maximum Daily Construction Emissions. It is noted the air quality modeling assumes the monitoring well installation occurring in September 2016; however, due to time required to complete the IS/MND this date has been moved to April 2017. This small change in schedule for monitoring well installation would not change the results of the modeling. As shown in Table 4-4, the maximum daily construction emissions would be well below the SCAQMD thresholds, and impacts would be less than significant; no mitigation is required.

**TABLE 4-4
ESTIMATED MAXIMUM DAILY CONSTRUCTION EMISSIONS
(LBS/DAY)**

	VOC	NOx	CO	SOx	PM10	PM2.5
Maximum daily emissions from Monitoring Well Drilling/Installation in 2017	<0.5	5	3	<0.5	<0.5	<0.5
Maximum daily emissions from peak day LFG Extraction System Installation in 2017	<0.5	5	4	<0.5	<0.5	<0.5
Maximum daily emissions from peak day LFG Extraction System Installation in 2018	1	9	6	<0.5	1	<0.5
SCAQMD Daily Thresholds (Table 4-3)	75	100	550	150	150	55
Exceeds SCAQMD Thresholds?	No	No	No	No	No	No
lbs/day: pounds per day; VOC: volatile organic compound(s); NOx: nitrogen oxides; CO: carbon monoxide; SOx: sulfur oxides; PM10: respirable particulate matter with a diameter of 10 microns or less; PM2.5: fine particulate matter with a diameter of 2.5 microns or less						
CalEEMod output data are in Appendix A.						

Construction Impacts – Localized Air Quality

The localized effects from the on-site portion of daily emissions were evaluated at sensitive receptor locations potentially impacted by the Project according to the SCAQMD’s localized significance threshold (LST) method, which utilizes on-site mass emissions rate look-up tables and Project-specific modeling, where appropriate. LSTs are applicable to the following criteria pollutants: nitrogen dioxide (NO₂), carbon dioxide (CO₂), respirable particulate matter with a diameter of 10 microns or less (PM10), and fine particulate matter with a diameter of 2.5 microns

or less (PM2.5).³ LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or State ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor. For PM10 and PM2.5, LSTs were derived based on requirements in SCAQMD Rule 403, Fugitive Dust (RR AQ-1). The mass rate look-up tables were developed for each source receptor area and can be used to determine whether or not a project may generate significant adverse localized air quality impacts. The SCAQMD provides LST mass rate look-up tables for projects that are less than or equal to five acres.

Consistent with the SCAQMD's LST method guidelines, when quantifying mass emissions for localized analysis only emissions that occur on the construction site are considered; therefore, emissions related to off-site delivery/haul truck activity and employee trips are not considered in the evaluation of localized impacts. The nearest sensitive receptors are the residences in the community of City Terrace located near the top of the 75-foot-high slope adjacent to the northwest portion of the site. Additionally, for LST analysis of NO₂ and CO impacts, all receptors that might be exposed for one hour are considered. The LSTs for a 1-acre site with receptors at a distance of 25 meters were used; these are the most conservative thresholds.⁴ The results of the LST analysis are in Table 4-5, Maximum Localized Construction Pollutant Emissions. As shown in Table 4-5, localized emissions for all criteria pollutants would be less than their respective SCAQMD LSTs for all pollutants. Thus, impacts would be less than significant and no mitigation is required.

**TABLE 4-5
MAXIMUM LOCALIZED CONSTRUCTION POLLUTANT EMISSIONS
(LBS/DAY)**

	NOx	CO	PM10	PM2.5
Maximum On-site Emissions	5	4	<0.5	<0.5
SCAQMD LSTs	83	673	5	4
Exceeds SCAQMD Thresholds?	No	No	No	No
lbs/day: pounds per day; NOx: nitrogen oxides; CO: carbon monoxide; PM10: respirable particulate matter with a diameter of 10 microns or less; PM2.5: fine particulate matter with a diameter of 2.5 microns or less;				
Thresholds for Monterey Park, Source Receptor Area 11				
Source: SCAQMD 2009 (LSTs)				

Toxic Air Contaminants Impacts

The greatest potential for toxic air contaminant (TAC) emissions during construction would be related to diesel particulate emissions associated with heavy equipment operations. The SCAQMD does not consider diesel-related cancer risks from construction equipment to be an issue due to the short-term nature of construction activities. Construction activities associated with the Project would be temporary (approximately eight months). Also, it is noted that diesel-powered construction equipment would be operating only a small proportion of this period. The assessment of cancer risk is typically based on a 70-year exposure period. Because exposure to diesel exhaust would be well below the 70-year exposure period, construction of the Project is not anticipated to result in an elevated cancer risk to exposed persons due to the short-term

³ NO₂ impacts are addressed by evaluating nitrogen oxide (NOx) emissions.

⁴ The LST method uses meters for source-receptor distances.

nature of construction. As such, Project-related toxic emission impacts during construction would be less than significant and no mitigation is required.

Operational Impacts – Regional and Localized Air Quality

LFG Emissions. The LFG Extraction System would be constructed and operated in accordance with SCAQMD Rules 201 and 203 (RR AQ-1). As described under “Landfill Gas Emissions Modeling” above, existing LFG emission rates were estimated for the total landfill and not just for the County-owned portion addressed by the Project. As discussed in Section 3.0, Project Description, the media bed treatment system would remove the NMOCs (which are VOCs) from the LFG via absorption and the methane and CO₂ fraction of the LFG would be vented to the atmosphere. There would be no increase in the rate or volume of methane or CO₂ emissions with Project implementation, because the LFG Extraction System would be designed with adequate vacuum only to move the LFG from the ground to the treatment system. Operation of the LFG Extraction System ensures that the LFG is emitted within the landfill boundaries, and off-site migration is halted. However, operation of the Project would reduce existing airborne pollutant concentrations of VOCs due to LFG emissions. The LFG Extraction System would be subject to SCAQMD permitting, and the specific requirements of the Project would be determined during the final design specifications in coordination with the LEA and subsequent to preparation of this IS/MND. However, the SCAQMD’s emissions requirements would necessarily be specified such that regional and local emissions and the air quality are not adversely affected, as that is the purpose of the permitting process. The monthly monitoring well sampling would result in a nominal release of LFG during the brief period each well is open to collect a sample. Therefore, operation of the Project would not exceed any SCAQMD regional and localized thresholds, and impacts would be less than significant. No mitigation would be required.

Non-LFG Emissions. As described in Section 3.0 of this Initial Study, it is anticipated that once-weekly maintenance visits by County staff would be required during the initial phase (approximately two months) after the Project is fully installed and commissioned, followed by one to two visits per month. Maximum daily vehicle emissions resulting from the maintenance visits were estimated using CalEEMod and would be less than one pound per day for all criteria pollutants; the CalEEMod data are in Appendix A. The operational non-LFG emissions would be substantially less than the SCAQMD significance criteria shown in Table 4-3 and would be less than significant; no mitigation measures are required.

- c) **Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?**

Less than Significant Impact. The region is a federal or State nonattainment area for PM₁₀, PM_{2.5}, and ozone (O₃). The SCAQMD’s approach for assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the Federal and State Clean Air Acts. As discussed in Threshold 4.3(a), the Project would be consistent with the AQMP, which is intended to bring the SoCAB into attainment for all criteria pollutants.⁵ In addition, the operational regional emissions of PM₁₀, PM_{2.5}, and O₃

⁵ Section 15064(h)(3) of the State CEQA Guidelines states “A lead agency may determine that a project’s incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that will avoid or substantially lessen the cumulative problem (e.g., water quality control plan, air quality plan, integrated waste management plan) within the geographic area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency”.

precursors VOCs and nitrogen oxides (NO_x) calculated for the Project would be substantially less than the applicable SCAQMD daily significance thresholds that are designed to assist the region in attaining the applicable State and national ambient air quality standards. With regard to cumulative local impacts due to concurrent construction activities of related projects, there are no known construction projects currently active or proposed in the local vicinity, as described in Section 4.17, Mandatory Findings of Significance. As such, cumulative impacts would be less than significant and no mitigation is required.

d) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact. As described in Threshold 4.3(b), the Project would not result in any substantial TAC air pollution impacts, and construction criteria pollutant emissions would be less than the conservative LST. Therefore, Project construction would not expose any nearby sensitive receptors to substantial pollutant concentrations. As such, the Project would have a less than significant impact no mitigation is required.

A CO hotspot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically near intersections. If a project increases average delay at signalized intersections operating at level of service (LOS) E or F or causes an intersection that would operate at LOS D or better without the project to operate at LOS E or F with the project, there is a potential for a CO hotspot. The Project would not increase daily or otherwise routine traffic to the site. Monitoring and maintenance visits by County staff or its contractors would be infrequent, including one to two visits monthly for the LFG Extraction System after the approximate two-month initial phase with once-weekly visits and monthly monitoring well sampling. Therefore, the Project would not increase congestion at major signalized intersections. There would be no impact and no exposure of sensitive receptors to Project-generated local CO emissions.

e) Would the project create objectionable odors affecting a substantial number of people?

No Impact. According to the SCAQMD's *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (SCAQMD 1993). The Project involves a landfill that was closed in 1958. The Project would not add new municipal solid waste (MSW) to the landfill, nor would it expose buried MSW during the construction process. The extraction well drilling activity would generate cuttings, referred to as spoils, at the surface from displacement by the drilling auger, and these would be removed and disposed of by the end of each day of drilling (i.e., up to five days). However, excavation activity that would result in open areas of MSW would not occur with Project implementation. The LFG Extraction System would release small quantities of methane; however, methane is odorless. No other sources of objectionable odors have been identified. The impact would be less than significant and no mitigation is required.

Short-term Project construction equipment and activities would generate odors. As discussed for the extraction wells, monitoring well installation would generate cuttings. However, the monitoring wells locations do not overlie the landfill, and the cuttings would therefore be comprised of undisturbed soils and would not have a notable odor. Potential construction odors include diesel exhaust emissions and paving activities. There may be situations where construction activity odors would be noticeable by persons working at or visiting nearby facilities, but these odors would not be unfamiliar or necessarily objectionable. The odors would be temporary and would dissipate rapidly from the source with an increase in distance. Therefore, the impacts would be

short-term; would not be objectionable to a substantial number of people; and would be less than significant.

MITIGATION MEASURES

There would be no significant adverse impacts relating to air quality; therefore, no mitigation measures are required.

4.4 <u>BIOLOGICAL RESOURCES</u>	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IMPACT ANALYSIS

Regulatory Requirements

None required.

Impact Discussion

- a) **Would the project have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?**

No Impact. The 0.7-acre disturbance footprint within the larger Project site is largely disturbed and does not contain any native habitats that would support special status vegetation types. As discussed in Section 2.0, the footprint includes ornamental, disturbed, and developed vegetation types. Both of the monitoring well locations are situated on paved areas and, as such, are identified as having a developed vegetation type. Exhibit 4-1, Vegetation Types, illustrates the distribution of vegetation types throughout the footprint and at the two new monitoring well locations. The south- and east-facing slopes at the northern edge of the footprint contain



	Survey Area
	Monitoring Well
	Potential Off-site Utility Connection
Vegetation Types and Other Areas	
	Ornamental
	Disturbed

Aerial Source: LAR-IAC 2014

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Vegetation Types and Other Areas

Exhibit 4-1

Former Cogen Landfill Gas Extraction System and Monitoring Plan Project



ornamental vegetation and include species such as tree of heaven (*Ailanthus altissima*), ornamental yucca (*Yucca* sp.), and eucalyptus trees (*Eucalyptus* sp.). The disturbed areas of the Project site consisted of bare soil and scattered weedy species such as Russian thistle (*Salsola tragus*), tree tobacco (*Nicotiana glauca*), giant reed (*Arundo donax*), and castor bean (*Ricinus communis*).

There is no potential for any Candidate, Sensitive, or Special Status plant or wildlife species to occur within in the disturbance footprint or at the new monitoring well locations. Therefore, there would be no impacts to special status species in local or regional plans, policies, or regulations; no mitigation is required.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No Impact. As described above, no native vegetation types occur within the disturbance footprint or at the new monitoring well locations. As a result, there are no riparian habitats or sensitive natural communities identified by regional plans, policies, regulations, or agencies on the Project site.

c) Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. An examination of the disturbance footprint and new monitoring well locations determined there is no potential for jurisdictional resources to occur in these areas, as there are no drainage features present. Due to the lack of potential jurisdictional resources, there would be no impact to federally protected wetlands.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less than Significant Impact with Mitigation. The disturbance footprint is surrounded by urban development, including Sheriff Road to the east and various existing County facilities and residential homes to the west, north, and south. The new monitoring well locations are both surrounded by urban development, including water tanks (CMW-2) and dense residential land uses (CMW-1). The footprint and monitoring well locations do not provide potential passage to any significant quantity or quality of native wildlife in the region. Also, the footprint is partially fenced and contains steep slopes to the north and northwest. These features would allow for only very small and common wildlife species to sporadically use these areas for foraging.

The federal Migratory Bird Treaty Act of 1918 (MBTA) protects the nests of all native bird species, including common species such as mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), and house finch (*Carpodacus mexicanus*). Nesting birds and raptors have the potential to occur in natural and non-natural features within and adjacent to the disturbance footprint, and near the new monitoring well locations. In addition to the MBTA, Sections 3503 and 3503.5 of the *California Fish and Game Code* protect nesting migratory birds and raptors, and impacts to nesting birds, both on and adjacent to the disturbance footprint and the new monitoring well locations, would be considered a significant impact prior to mitigation.

As described in MM BIO-1, construction activities should be planned during the non-breeding season if possible to most readily avoid any potentially significant impact to nesting birds and raptors that may be present on or near the disturbance footprint or new monitoring well locations. If Project implementation necessitates that construction activities (both for the LFG Extraction System and new monitoring well installation) be initiated during the breeding season for nesting birds (March 1–September 30) and/or nesting raptors (February 1–June 30), MM BIO-1 requires a pre-construction nesting bird/raptor survey prior to construction to ensure compliance with the MBTA and describes the process for protecting any active nests identified while construction is ongoing. With implementation of MM BIO-1, potentially significant impacts to nesting migratory birds and raptors during their breeding seasons would be reduced to a less than significant impact. If construction activities occur outside the breeding season, implementation of MM BIO-1 would not be required, and there would be no impact to nesting birds and raptors.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The Project does not involve the removal or trimming of any trees. Limited removal of low-growing vegetation (e.g., shrubs, grasses) within portions of the disturbance footprint would be required to install the LFG Extraction System (i.e., media bed treatment system, extraction wells, and associated piping). However, the Project would not involve any tree removal. There would be no impact.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. There is no habitat conservation plan or natural community conservation plan for the Project area. Also, there are no County-designated Significant Ecological Areas (SEAs) within or adjacent to the City of Monterey Park. There would be no impact.

MITIGATION MEASURES

MM BIO-1 The Project shall be conducted in compliance with the conditions set forth in the Migratory Bird Treaty Act (MBTA) and *California Fish and Game Code* with methods approved by the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) to protect active bird/raptor nests. If possible, construction activities shall occur during the non-breeding season for nesting birds and nesting raptors to avoid impacts to nesting birds and raptors. If the Project requires that construction activities be initiated during the breeding season for nesting birds (March 1–September 30) and nesting raptors (February 1–June 30), a pre-construction survey for nesting birds and/or raptors shall be conducted by a qualified Biologist within 3 days prior to any construction activities within the Project site and immediately surrounding area (i.e., within 50 feet for nesting birds and within 500 feet for nesting raptors). If the Biologist does not find any active nests in or immediately adjacent to the Project site, the construction work shall be allowed to proceed and no further mitigation is required.

If the Biologist finds an active nest in or immediately adjacent to the planned construction site and determines that the nest may be impacted or breeding activities substantially disrupted due to planned construction activities, the Biologist shall delineate an appropriate buffer zone around the nest depending on the sensitivity of the species and the nature of the construction activity. Any nest found during survey efforts shall be mapped on the construction plans. The active

nest shall be protected until nesting activity has ended. To protect any nest site, the following restrictions to construction activities shall be required until nests are no longer active, as determined by a qualified Biologist: (1) construction limits shall be established within a buffer around any occupied nest (the buffer shall be 25–100 feet for nesting birds and 300–500 feet for nesting raptors), unless otherwise determined by a qualified Biologist and (2) access and surveying shall be restricted within the buffer of any occupied nest, unless otherwise determined by a qualified Biologist. Encroachment into the buffer area around a known nest shall only be allowed if the Biologist determines that the proposed activity would not disturb the nest occupants. Construction in a buffer area can proceed when the qualified Biologist has determined that fledglings have left the nest or the nest has failed.

4.5	<u>CULTURAL AND TRIBAL RESOURCES</u>	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:					
a)	Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d)	Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e)	Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i)	Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)? or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii)	A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IMPACT ANALYSIS

Regulatory Requirements

RR CUL-1 If human remains are encountered during excavation activities, the requirements of *California Public Resources Code* §5097.98 and *California Health and Safety Code*, §7050.5 will be followed. This includes halting all work in the immediate vicinity of the discovery and notifying the County Coroner (*California Public Resources Code* §5097.98), who will determine whether the remains are of forensic interest. If it is determined that the remains are prehistoric, the Native American Heritage Commission (NAHC) will then be contacted in order to designate the most likely descendant (MLD). Pursuant to Section 7050.5 of the *California Health and Safety Code*, the MLD will make his/her recommendation within 48 hours of being granted access to the site and is responsible for the ultimate disposition of the remains. The MLD’s recommendation will be followed if feasible, and may include scientific removal and non-destructive analysis of the human remains and any items associated with Native American burials (*California*

Health and Safety Code, §7050.5). If the landowner rejects the MLD's recommendations, the landowner will rebury the remains with appropriate dignity on the property in a location that will not be subject to further subsurface disturbance (*California Public Resources Code §5097.98*).

Impact Discussion

- a) **Would the project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?**

No Impact. There are no existing structures within the disturbance footprint, and therefore no historic built environment resources. The area that would be disturbed for the possible off-site electrical connection is developed with a paved roadway, sidewalk, paved parking lot, and wooden utility pole. Similarly, the areas of disturbance for the monitoring well locations include a paved roadway and a paved water tank lot. These built environment structures are not historically significant. There would be no impacts to historic resources.

- b) **Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?**
- c) **Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**
- d) **Would the project disturb any human remains, including those interred outside of dedicated cemeteries?**
- e) ***Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:***
- ii) **Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)? or**
 - ii) **A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?**

Less than Significant Impact with Mitigation. The disturbance footprint of the LFG Extraction System and extraction wells is located entirely within the former landfill boundaries, and is expected to be underlain with an estimated 10 feet of landfill cover (i.e., imported soil) over an estimated waste depth of 40 feet. Because the footprint is not located on natural geologic units or native soils, but landfill waste and cover that has been in place since the late 1950s, there is no potential to encounter known or unknown archaeological, paleontological, or tribal cultural resources during installation of the LFG Extraction System and extraction wells. Similarly, there is no indication that human remains, including those interred outside cemeteries, are present within the disturbance footprint.

Installation of the two new monitoring wells would involve drilling into, and displacing, both previously disturbed sediments (e.g., artificial fill, graded soils), native soils and bedrock. The

Project geologist reviewed three boring logs of existing monitoring wells located in the vicinity of the LACFD water tanks to assess the anticipated geology at the proposed monitoring well locations. The borings near the water tanks encountered disturbed sediments on top of bedrock of the Tertiary-age (2.6 million to 66 million years old) Fernando Formation at depths between one and four feet bgs. As such, previously disturbed sediments, less than five feet thick, on shallow bedrock is expected at both monitoring well locations (Siskowic 2016). However, prior to drilling it can never be certain what will be encountered. Each well location is estimated to result in approximately four cubic yards (cy) of displaced materials, called spoils when as a result of drilling activity, that would include asphalt, fill, disturbed soils, and bedrock. The minor amount of undisturbed material within the approximate four cy of spoils is unlikely to contain any archaeological, paleontological, or tribal cultural resources. However, there is always the possibility of uncovering unknown resources.

Additionally, regarding tribal cultural resources, the Project is subject to Assembly Bill (AB) 52. "AB 52" (Statutes of 2014) is applicable to projects that have filed a Notice of Preparation (NOP) of an Environmental Impact Report (EIR), or notice of a Negative Declaration (ND) or Mitigated Negative Declaration (MND) on or after July 1, 2015. AB 52 requires lead agencies to initiate consultation with California Native American Tribes that have requested such consultation, and allows Tribes 30 days after receiving notification to request consultation. On November 17, 2016, the County submitted notification of the Project via email to the representatives of the four tribes that have requested such notification – the Gabrieleno Band of Mission Indians - Kizh Nation, Fernandeno Tataviam Band of Mission Indians, San Manuel Band of Mission Indians, and Tejon Indian Tribe. Of these four, three tribes responded and stated the Project area is outside their ancestral territory and declined consultation. The Gabrieleno Band of Mission Indians – Kizh Nation responded on December 13, 2016 and requested consultation. After further discussion regarding the details of the Project, based on the very limited potential to disturb native, in-situ materials, limited to brief drilling internals during installation of the proposed monitoring wells, the representative of this tribe concluded that tribal cultural resources were not anticipated to be impacted, and Native American monitoring or other mitigation to reduce impacts to tribal cultural resources would not be necessary (Nabahani 2016). With these communications for the four tribes listed for notification by the County, the AB 52 process was completed.

The potential exposure of buried historic, archaeological, and/or tribal cultural resources during ground-disturbing activities, although remote, would be addressed by MM CUL-1, which requires that a qualified Archaeologist be hired in the event potential resources are encountered and that a mitigation plan is developed and implemented, in consultation with the County, that satisfies Sections 21074 and 21083.2(g) of the *California Public Resources Code* and Section 15064.5(a) of the State CEQA Guidelines. Similarly, exposure of paleontological resources (i.e., fossils) during ground-disturbing activities would be addressed by MM CUL-2, which required that a qualified Paleontologist be hired in the event potential paleontological resources are encountered to evaluate the resource and determine appropriate actions based on this evaluation. Any recovered fossils shall be deposited in an accredited institution or museum, such as the Natural History Museum of Los Angeles County. Finally, exposure of unanticipated human remains is addressed by adherence to Section 5097.98 of the *California Public Resources Code* and Section 7050.5 of the *California Health and Safety Code* (RR CUL-1). There would be less than significant impacts anticipated to archaeological resources, tribal cultural resources, paleontological resources, or human remains with implementation of RR CUL-1, MM CUL-1, and MM CUL-2.

MITIGATION MEASURES

MM CUL-1 Should potential archaeological resources be found during ground-disturbing activities for the Project, drilling activity shall be temporarily halted and a qualified Archaeologist shall be hired to first determine whether the resource is a “Tribal Cultural Resource” pursuant to Section 21074 of the *California Public Resources Code*, a “unique archaeological resource” pursuant to Section 21083.2(g) of the *California Public Resources Code*, or a buried “historical resource” pursuant to Section 15064.5(a) of the California Environmental Quality Act (CEQA) Guidelines. If the potential resource is determined not to be significant by the Archeologist pursuant to the above-referenced section, work on the monitoring well would resume. If the archaeological resource is determined to be a “Tribal Cultural Resource”, “unique archaeological resource”, or a “historical resource”, the Archaeologist shall formulate a mitigation plan in consultation with the County that satisfies the requirements of the above-referenced sections. Upon approval of the mitigation plan by the County, the Project shall be implemented in compliance with the mitigation plan. If the Archaeologist determines that the archaeological resource is not a “Tribal Cultural Resource”, “unique archaeological resource”, or “historical resource”, for those resources that are 45 years old or more, s/he may record the site and submit the recordation form to the California Historic Resources Information System at the South Central Coastal Information Center at California State University, Fullerton.

MM CUL-2 Should potential paleontological resources be found during ground-disturbing activities for the Project, drilling activity shall be temporarily halted and a qualified Paleontologist will be hired to evaluate the resource. If the potential resource is found not to be significant by the Paleontologist, working on the monitoring well would resume. If the resource is found to be significant, the Paleontologist shall determine appropriate actions, in cooperation with the County, for further exploration and/or salvage. A Disposition of the Recovered Paleontological Resources and Mitigation Report shall be prepared by the qualified Paleontologist and submitted to the County. Any recovered fossils shall be deposited in an accredited institution or museum, such as the Natural History Museum of Los Angeles County.

4.6 <u>GEOLOGY AND SOILS</u>	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IMPACT ANALYSIS

Regulatory Requirements

RR GEO-1 The LFG Extraction System will be designed and constructed in compliance with Title 26, Building Code, of the County of Los Angeles Code, which incorporates by reference the 2013 California Building Code (CBC); the Los Angeles County Department of Public Works' *Standard Specifications for Public Works Construction* (Graybook); and any other applicable ordinances set forth by the County for ensuring the structural integrity of new construction against seismic and soil engineering hazards.

RR HYD-1, provided in Section 4.9, Hydrology and Water Quality, is also applicable to the analysis of topsoil loss below.

Impact Discussion

- a) **Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**
- i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**
 - iii) **Seismic-related ground failure, including liquefaction?**

No Impact. The Project is not within an Alquist-Priolo Earthquake Fault Zone (CGS 1977) and no active faults have been identified at the surface within the City of Monterey Park or surrounding areas, including the new monitoring well locations (Monterey Park 2001). The nearest Alquist-Priolo Zone is associated with the Raymond Fault, located approximately five miles to the north of the Project site at its nearest point. Therefore, the risk of surface rupture at the Project site is considered remote and there would be no impact.

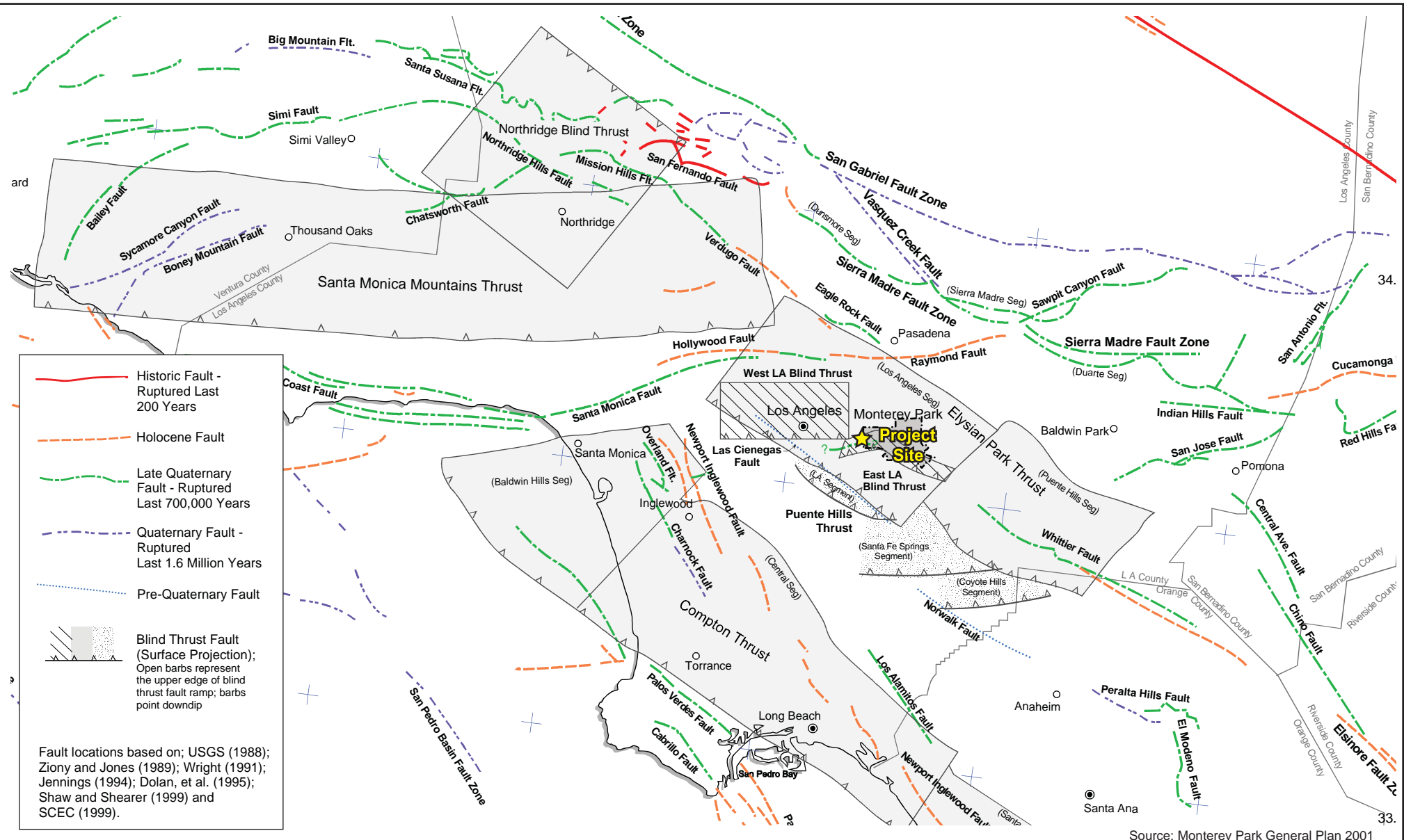
According to the Seismic Hazard Zones Map for the Los Angeles Quadrangle prepared by the California Geological Survey (CGS), neither the Project site nor the new monitoring well locations are identified as susceptible to liquefaction (CGS 1999). Also, the City's General Plan states that liquefaction does not represent a hazard in Monterey Park because groundwater levels are not shallow (Monterey Park 2001). It is noted that the landfill is underlain with landfill cover and compacted waste, rather than native geologic materials. The municipal waste was compacted and landfill cover was placed over the waste at the end of each day's operations, and is expected to be relatively stable. There would be no impact related to liquefaction.

- a) **Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**
- ii) **Strong seismic ground shaking?**
 - iv) **Landslides?**

Less than Significant Impact. While there are no active faults with a surface trace in the City and surrounding areas, as discussed above, the Project area does overlie a number of blind thrust faults. The faults are referred to as blind because they do not intercept the ground surface and therefore cannot be detected visually. These northwest-dipping, low-angle faults include, from shallowest to deepest: the Puente Hills Thrust, the Elysian Park Thrust, and the East Los Angeles Thrust. These faults are capable of movement that could produce substantial ground shaking (Monterey Park 2001). Exhibit 4-2, Earthquake Faults in the Project Area, illustrates the estimated surface projections of these blind thrust faults in relation to the Project site and surrounding areas. However, seismic ground shaking from major faults in the region is not anticipated to be greater than at any other sites in Southern California. Also, the Project would not involve construction of habitable structures or structures whose height, mass, or materials would pose a hazard in the event of an earthquake.

According to the CGS Seismic Hazard Zones Map for the Los Angeles Quadrangle, the westernmost portion of the landfill north of the BRTC is identified as susceptible to earthquake-induced landslides (CGS 1999). It is interpreted that this corresponds with the existing steep slope located along the northwestern landfill boundary, and adjacent to the disturbance footprint. As discussed above, the Project would not involve habitable structures that would be at risk from a landslide. The Project would result in temporary exposure to landslide hazards for workers present on site during construction and operation of the LFG Extraction System and monthly sampling of wells

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Earthquake Faults in the Project Area
 Former Cogen Landfill Gas Extraction System and Monitoring Plan Project

Source: Monterey Park General Plan 2001

Exhibit 4-2



and surface locations near this slope. However, the Project site is adjacent to flat, or stable, ground immediately to the east that would be easily accessible to any on-site personnel in the event of an earthquake wherein a possible landslide could be avoided. Also, the County-owned portion of the landfill has a history of various personnel periodically being on site associated with site investigations and LFG monitoring. The risk of loss, injury, or death from a landslide is considered low and not reasonably foreseeable given the low likelihood of a major earthquake occurring at a time there are workers on the site and the ability to easily move from the area of risk if ground shaking were to begin.

The new monitoring well locations are not identified on the Seismic Hazard Zones Map as susceptible to landslides (CGS 1999). Therefore, installation of the two monitoring wells would not exacerbate any existing landslide risk for the slope within the western portion of the Project site because the borehole created by the drilling is stabilized with gravel and hydrated bentonite around the well casings (see Exhibit 3-6).

The potential for strong ground shaking and earthquake-induced landslides are existing seismic hazards that affect the Project site; as such, Project implementation would not exacerbate these conditions. In summary, the Project would not result in a significant adverse impact by exposing people or structures to major seismic hazards beyond what is considered normal for the Southern California region. There would be less than significant impacts related to seismic ground shaking and landslides and no mitigation is required.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact. The largest source of erosion and topsoil loss, particularly in a developed environment, is uncontrolled drainage during construction. The disturbance footprint is relatively flat with a gentle slope to the south, and has been previously graded or otherwise disturbed. The areas of the new monitoring well locations and possible off-site electricity connection are also relatively flat and are fully paved. Construction of the LFG Extraction System would result in discrete, limited areas of shallow ground disturbance within the footprint during site preparation for the media bed treatment system and for installation of each extraction well and associated piping. These construction activities on exposed soils could lead to erosion and topsoil loss during heavy rains.

The total area of ground disturbance for construction of the LFG Extraction System would be less than one acre (i.e., approximate 0.7-acre disturbance footprint within the landfill and approximate 200 ft² of disturbance for installation of the possible off-site electrical connection). Installation of the monitoring wells, which would occur well before construction of the LFG Extraction System, would also involve ground disturbance of less than one acre (approximate 2.25 ft² of disturbance for both new monitoring wells). Therefore, compliance with the State Water Resources Control Board's (SWRCB's) National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with the Construction and Land Disturbance Activities⁶ (Construction General Permit) would not be required. However, pursuant to the California Green Building Standards Code (CALGreen), as amended, projects disturbing less than one acre of land shall prevent storm water pollution during construction by (1) complying with a local storm water management/erosion control ordinance and/or (2) implementing an effective combination of erosion control and good housekeeping Best Management Practices (BMPs) to reduce or eliminate pollutants in storm water discharges (2013 CALGreen, Section 5.106.1 et seq.). For the Project, the first option is applicable as Chapter 12.80 of the County Code defines the County's Stormwater and Runoff Pollution Control Ordinance. The construction would be scheduled

⁶ Order No. 2009-0009-DWQ, NPDES No. CAS000002, adopted by the SWRCB on September 2, 2009 (effective for all project sites on July 1, 2010) and most recently amended by Order No. 2012-0006-DWQ on July 17, 2012.

outside the storm season (i.e., from approximately April to July). In the event that rain is forecast during the construction period, the appropriate BMPs—such as sandbags, silt fencing, and/or straw wattles—would be determined and implemented in compliance with the County ordinance.

Compliance with RR HYD-1 regarding the implementation of the County's Stormwater and Runoff Pollution Control Ordinance (Chapter 12.80 of the County Code) for the Project would reduce pollutants in the runoff. Therefore, impacts related to potential soil erosion or loss of topsoil would be less than significant and no mitigation is required.

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less than Significant Impact. Liquefaction and landslides are addressed under Thresholds 4.6(a)(iii) and 4.6(a)(iv) above. As discussed, the disturbance footprint is underlain with an estimated 10 feet of landfill cover (i.e., imported soil) over an estimated waste depth of 40 feet, while the monitoring well locations are underlain by native soils.

Because liquefaction is not expected within the disturbance footprint or at the monitoring well locations, there would also be no impacts related to lateral spreading, a liquefaction-related phenomena. Land subsidence and collapse occur due to the loss of surface elevation due to the removal of subsurface support, such as removal of water, oil, or gas. The volume of LFG extracted would not be of a volume or at a rate that would result in subsidence of the ground surface. As per RR GEO-1, the LFG Extraction System would be designed and constructed in compliance with applicable 2013 CBC and LACDPW Graybook seismic safety and soil engineering standards. Finally, the Project does not include any habitable structures or structures whose height, mass, or materials would pose a hazard in the presence of unstable geologic materials. Therefore, there would be less than significant impact related to the potential presence of unstable geologic units and no mitigation is required.

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Less than Significant Impact. Expansive soils are soils that swell when they absorb water and shrink as they dry. Pure clay soils and claystone are good examples of expansive soils. The hazard associated with expansive soils is that they can overstress and cause damage to the foundation of buildings set on top of them. The landfill cover materials within the disturbance footprint are comprised of imported fill soils, which are generally well-sorted and have a relatively low clay content, and are therefore not susceptible to expansion. Regardless, RR GEO-1 requires the LFG Extraction System to be designed and constructed in compliance with applicable 2013 CBC and LACDPW Graybook seismic safety and soil engineering standards. If expansive soils are identified in the Project site, appropriate soil remedial measures consistent with the 2013 CBC would be implemented. This would generally involve removal and recompaction of non-expansive fill soils.

The presence of expansive soils is not an issue for the locations of the monitoring wells because they would be located entirely in the subsurface, and the borehole is stabilized with gravel and hydrated bentonite around the well casings. There would be a less than significant impact related to expansive soils and no mitigation is required.

- e) **Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?**

No Impact. The Project does not include the construction of any septic systems. The LFG Extraction System construction crew would be served by portable toilets that would be brought to the site during the construction activities and removed at the end of construction activities. The monitoring well installation crew would not require sanitary facilities as this involves one day of activity at each location. There would be no impact.

MITIGATION MEASURES

There would be no significant impacts related to geology and soils; therefore, no mitigation is required.

4.7 GREENHOUSE GAS EMISSIONS	Potentially Significant Impact	Less Than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

IMPACT ANALYSIS

Climate Change Background

Climate change refers to any significant change in measures of climate, such as average temperature, precipitation, or wind patterns over a period of time. Climate change may result from natural factors, natural processes, and human activities that change the composition of the atmosphere and alter the surface and features of the land. Significant changes in global climate patterns have recently been associated with global warming, which is an average increase in the temperature of the atmosphere near the Earth's surface; this is attributed to an accumulation of greenhouse gas (GHG) emissions in the atmosphere. GHGs trap heat in the atmosphere which, in turn, increases the Earth's surface temperature. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. The emission of GHGs through fossil fuel combustion in conjunction with other human activities appears to be closely associated with global warming.

GHGs, as defined under California's Assembly Bill (AB) 32, include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). General discussions on climate change often include water vapor, ozone, and aerosols in the GHG category. Water vapor and atmospheric ozone are not gases that are formed directly in the construction or operation of development Projects, nor can they be controlled in these projects. Aerosols are not gases. While these elements have a role in climate change, they are not considered by either regulatory bodies (e.g., CARB) or climate change groups (e.g., the California Climate Action Registry [CCAR]) as gases to be reported or analyzed for control. Therefore, no further discussion of water vapor, ozone, or aerosols is provided.

GHGs vary widely in the power of their climatic effects; therefore, climate scientists have established a unit called global warming potential (GWP). The GWP of a gas is a measure of both potency and lifespan in the atmosphere as compared to CO₂. For example, since CH₄ and N₂O are approximately 21 to 28 and 265 to 310 times more powerful than CO₂, respectively, in their ability to trap heat in the atmosphere, they have GWPs corresponding to their heat-trapping capacity (CO₂ has a GWP of 1). Carbon dioxide equivalent (CO₂e) is a quantity that enables all GHG emissions to be considered as a group despite their varying GWP. The GWP of each GHG is multiplied by the prevalence of that gas to produce CO₂e. The atmospheric lifetime and GWP of selected GHGs are summarized in Table 4-6, Global Warming Potentials and Atmospheric Lifetimes.

**TABLE 4-6
GLOBAL WARMING POTENTIALS AND ATMOSPHERIC LIFETIMES**

Greenhouse Gas	Atmospheric Lifetime (years)	Global Warming Potential (100-year time horizon) ^a
Carbon Dioxide (CO ₂)	50–200 ^b	1
Methane (CH ₄)	12±3	21-28
Nitrous Oxide (N ₂ O)	120	310-265
HFC-134a	14.6	1,300
PFC: Tetrafluoromethane (CF ₄)	50,000	6,500-6,630
PFC: Hexafluoroethane (C ₂ F ₆)	10,000	9,200-11,100
Sulfur Hexafluoride (SF ₆)	3,200	23,900-23,500
HFC: hydrofluorocarbons; PFC: perfluorocarbons		
^a Where two values are shown, the first is the value from the IPCC's Second Assessment Report, which is used worldwide for GHG emissions reporting. The second value is from the IPCC's Fifth Assessment Report, the latest report. A single value indicates the same GWP was used in both reports. ^b For a given amount of carbon dioxide emitted, some fraction of the atmospheric increase in concentration is quickly absorbed by the oceans and terrestrial vegetation; some fraction of the atmospheric increase will only slowly decrease over a number of years; and a small portion of the increase will remain for many centuries or more.		
Source: USEPA 2014		

Regulatory Setting

The Project site is located in the City of Monterey Park and in unincorporated Los Angeles County. Regulatory information is provided for both jurisdictions, in addition to State regulations.

State

Senate Bill 32 and Assembly Bill 197

On September 8, 2016, the Governor signed SB 32 to implement the GHG reduction goals of EO B-30-15. Under SB 32, in "adopting rules and regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emissions reductions," CARB must ensure that statewide greenhouse gas emissions are reduced to 40 percent below the 1990 level by 2030. SB 32's findings state that CARB will "achieve the state's more stringent greenhouse gas emission reductions in a manner that benefits the state's most disadvantaged communities and is transparent and accountable to the public and the Legislature." This goal is expected to keep the State on track to meeting the goal set by EO S-3-05 of reducing GHG emissions by 80 percent below 1990 levels by 2050 (California Legislative Information 2016b).

AB 197 was signed at the same time and will make sure that the SB 32 goals are met by requiring CARB to provide annual reports of GHGs, criteria pollutants, and TACs by facility, City and subcounty level, and sector for stationary sources and at the County level for mobile sources. It also requires the CARB to prioritize specified emission reduction rules and regulations and to identify specified information for emission reduction measures (e.g., alternative compliance mechanism, market-based compliance mechanism, and potential monetary and nonmonetary incentive) when updating the Scoping Plan (California Legislative Information 2016c).

Assembly Bill 32 – the California Global Warming Solutions Act of 2006

AB 32, the California Global Warming Solutions Act of 2006, recognizes that California is the source of substantial amounts of GHG emissions. The statute states that:

Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

In order to avert these consequences, AB 32 establishes a State goal of reducing GHG emissions to 1990 levels by the year 2020, which is a reduction of approximately 30 percent from forecasted emission levels, with further reductions to follow (CARB 2014c).

Executive Order B-30-15

Executive Order (EO) B-30-15 establishes a new interim statement GHG reduction target of 40 percent below 1990 levels by 2030, to help ensure meeting the long-term GHG target set by EO S-3-05 (2005) to reduce emissions by 80 percent below 1990 levels by 2050. EA B-30-15 directs that all state agencies with jurisdiction over sources of GHG emissions are directed to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 greenhouse gas emissions reductions targets.

Local

City of Monterey Park

The City of Monterey Park published a Draft Climate Action Plan in June 2012 (Monterey Park 2012). There are no references to the County landfill in the Draft Climate Action Plan.

County of Los Angeles

General Plan

The Los Angeles County 2035 General Plan was adopted by the Los Angeles County Board of Supervisors on October 6, 2015. The Los Angeles County 2035 General Plan accommodates new housing and jobs within the unincorporated areas in anticipation of population growth in the County and the region (LACDRP 2015a). The Air Quality Element summarizes air quality issues and outlines the goals and policies in the General Plan that will improve air quality and reduce the GHG emissions. It states “The South Coast Air Basin, which includes the majority of Los Angeles County, continues to have among the worst air quality ratings in the country. Additionally, climate change, caused by an increase in greenhouse gas emissions, is one the most pressing environmental issues faced by all levels of government. Air pollution and climate change pose serious threats to the environment, economy, and public health” (LACDRP 2015a).

Community Climate Action Plan

The *Final Unincorporated Los Angeles County Community Climate Action Plan 2020* (CCAP) is part of the County General Plan and was adopted along with the General Plan on October 6,

2015. The CCAP provides policy guidance for reducing GHG emissions generated within the unincorporated areas. The CCAP ensures that the County will be able to reduce its emissions to 1990 levels by 2020 (LACDRP 2015b). The CCAP does not generally address landfill emissions; however, the CCAP includes one measure with an objective of capturing LFG to generate electricity, produce biofuels, or otherwise offset natural gas or other fossil fuels.

Regulatory Requirements

Regulatory Requirement RR AQ-1, included in Section 4.3, Air Quality, of this Initial Study, states that the Project is required to be constructed and operated in accordance with SCAQMD Rule 201, Regulation II, and Rule 203, which govern permitting of the Project.

RR AQ-1 All construction activities will be conducted in compliance with all applicable South Coast Air Quality Management District (SCAQMD) rules and permitting requirements, including but not limited to:

- SCAQMD Rule 403, Fugitive Dust, for controlling fugitive dust and avoiding nuisance. Compliance with this rule will reduce short-term particulate pollutant emissions. Contractor compliance with Rule 403 requirements will be mandated in the contractor's specifications.
- SCAQMD Rule 402, Nuisance, which states that a Project will not "discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property".
- SCAQMD Rule 201, Permit to Construct, requires a permit prior to the installation of any equipment "the use of which may cause the issuance of air contaminants . . .". SCAQMD Regulation II, List and Criteria Identifying Information Required of Applicants Seeking a Permit to construct from the South Coast Air Quality Management District, provides the requirements for the application for a Permit to Construct. SCAQMD Rule 203, Permit to Operate, requires a permit following the completion of construction permitted by the Permit to Construct.

Impact Discussion

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant Impact. Existing pollutant emissions are fugitive LFG that migrate through the surface of the soil.⁷ As discussed in Section 3.0 of this Initial Study, the LFGs of concern at Cogen include CO₂ and methane, which are GHGs. Quantities of fugitive emissions, or emission rates, (measured, for example, as pounds per day or tons per year) cannot be measured at Cogen because of the dispersed and unconfined nature of the emissions source. As described in Section 4.3, Air Quality, a modeling analysis estimated that that the present LFG generation potential of the entire landfill is approximately 100 standard cubic feet a minute (scfm). However, not all LFGs are GHGs. Based on the LFG modeling, the existing GHG emissions for the total landfill (i.e.,

⁷ Fugitive emissions are emissions not caught by a capture system, which are often due to equipment leaks, evaporative processes and windblown disturbances (CARB 2014c).

40 acres) are estimated at 11,997 MTCO₂e/yr. However, only a fraction of the total LFG generation, as well as GHG emissions, is from the 4.6-acre portion of the County-owned property, which is relatively small (approximately 12 percent) compared to the total landfill area of 40 acres.

Neither the County nor the City of Monterey Park has adopted or established any quantitative GHG emissions significance criteria. In April 2008, the SCAQMD convened a Greenhouse Gas Significance Threshold Working Group to provide guidance to local lead agencies on determining the significance for GHG emissions in their CEQA documents. The Working Group adopted a philosophy similar to recommendations made by other agencies in California to identify Significance Screening Levels, or thresholds, for GHG emissions. Projects with GHG emissions less than these levels or thresholds would be determined to have less than significant impacts. Projects with GHG emissions greater than the Significance Screening Level would be required to implement specific performance standards or purchase offsets to reduce their climate change impact to less than significant levels. Consequently, the County has determined, pursuant to the discretion afforded by Sections 15064.4(a) and 15064.4(b) of the State CEQA Guidelines, to quantify the GHG emissions from the Project based on the methods proposed by the SCAQMD's GHG CEQA Significance Threshold Working Group.

On December 5, 2008, the SCAQMD Governing Board adopted an interim screening threshold for industrial projects where the SCAQMD is the lead agency of 10,000 metric tons of carbon dioxide equivalent per year (MTCO₂e/year) (SCAQMD 2008). In September 2010, the working group proposed to expand this 10,000 MTCO₂e/year threshold to other lead agency industrial projects (SCAQMD 2010). Although the SCAQMD Governing Board has yet to consider this proposal, the SCAQMD threshold for industrial projects is the most applicable to the project and is used in the analysis below. It is noted that the use of the SCAQMD's screening threshold is selected as a threshold for the Project because it is located in the South Coast Air Basin and these thresholds are based on the best available information and data at the time of preparation of this document. The development of CEQA project-level thresholds is an ongoing effort on State, regional, and County levels, and significance thresholds may differ for future projects based on further data and information that may be available at that time.

Construction

Construction GHG emissions are generated by vehicle engine exhaust from construction equipment, on-road hauling trucks, and worker commuting trips. Construction GHG emissions were calculated by using CalEEMod as described in Section 4.3, Air Quality. The results are output in MTCO₂e. The estimated construction GHG emissions for the Project, including off-site Project component, are 97 MTCO₂e. CalEEMod data are included in Appendix A.

GHG emissions generated from construction activities are finite and occur for a relatively short-term period of time. Unlike the numerous opportunities available to reduce a project's long-term GHG emissions through design features, operational restrictions, use of green-building materials, and other methods, GHG emissions-reduction measures for construction equipment are relatively limited. Therefore, SCAQMD staff recommended that construction emissions be amortized over a 30-year project lifetime so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies (SCAQMD 2008). Therefore, the 30-year amortized construction emissions for the Project would be approximately 3.2 MTCO₂e/yr.

Operation

LFG Emissions. The LFG Extraction System would be constructed and operated in accordance with SCAQMD Rules 201 and 203 (RR AQ-1). As discussed in Section 4.2, Air Quality, there would be no increase in the rate or volume of methane or CO₂ emissions with Project

implementation, because the LFG Extraction System would be designed with adequate vacuum only to move the LFG from the ground to the treatment system. Operation of the LFG Extraction System ensures that the LFG is emitted within the landfill boundaries, and off-site migration is reduced such that any emissions are below regulatory limits. The LFG Extraction System would be subject to SCAQMD permitting, and the specific requirements of the Project would be determined during the final design specifications in coordination with the LEA and subsequent to preparation of this IS/MND. However, for purposes of this analysis, it can be concluded that operation of the Project would not increase emissions of methane or CO₂ (i.e., GHGs generated by the landfill) when compared to existing conditions. Therefore, operation of the LFG Extraction System would not contribute GHG emissions from LFG emissions. Non-LFG emissions are addressed below.

Non-LFG Emissions. The primary source of operational GHG emissions would be the electrical energy required to operate the LFG Extraction System. As the final design is not complete, it was conservatively assumed that the LFG Extraction System blower and any auxiliary electrical uses would require 12 kilowatts of electrical energy and that the systems would operate continuously through the year (i.e., for 8,760 hours per year).

Maintenance activities would create an almost negligible source of GHG emissions. As described in Section 3.0 of this Initial Study, it is anticipated that once-weekly maintenance visits by County staff would be required during the initial phase (approximately two months) after the Project is fully installed and commissioned, followed by one to two visits per month. The Monitoring Plan would involve a once-monthly visit by County staff, or consultants, to sample all six monitoring well locations and surface locations. Operational GHG emissions resulting from electrical energy use and maintenance visits were estimated using CalEEMod and were calculated at 27.3 MTCO₂e/yr; the CalEEMod data are in Appendix A. Thus, the estimated Project-generated annual GHG emissions, including amortized construction emissions of approximately 3.2 MTCO₂e/yr, would be 30.5 MTCO₂e/yr. This value may be compared with, and is substantially less than, the proposed SCAQMD screening threshold of 10,000 MTCO₂e/yr for industrial projects.

The California Air Pollution Control Officers Association's (CAPCOA's) *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act* states, "GHG impacts are exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective" (CAPCOA 2008). As noted in the California Natural Resources Agency's (CNRA's) *Final Statement of Reasons for Regulatory Action, Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97*, "Due to the global nature of GHG emissions and their potential effects, GHG emissions will typically be addressed in a cumulative impacts analysis" (CNRA 2009). Because the Project's total GHG emissions would be substantially less than 10,000 MTCO₂e/yr, the emissions would not be cumulatively considerable. The impact would be less than significant; and no mitigation would be required.

b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than Significant Impact. As discussed above, the principal State plans and policies adopted for the purpose of reducing GHG emissions include AB 32 and EO B-30-15. The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020; this has been updated by the goal of EO B-30-15 to reduce GHG emissions to 40 percent below 1990 levels by 2030. Statewide plans and regulations, such as GHG emissions standards for vehicles and the Low Carbon Fuel Standard, are being implemented at the statewide level, and compliance at the specific plan or project level is not addressed. Therefore, the Project does not conflict with these plans and regulations.

As discussed previously, the LFG Extraction System would not result in an increased rate or volume LFG, and, by extension, GHGs, to be released into the atmosphere. Therefore, the Project would not conflict with State, County, or City of Monterey Park plans. There would be a less than significant impact and no mitigation would be required.

MITIGATION MEASURES

There would be no significant impacts related to GHG emissions; therefore, no mitigation measures are required.

4.8 <u>HAZARDS/HAZARDOUS MATERIALS</u>	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter-mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or people residing or working in the Project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a Project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the Project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IMPACT ANALYSIS

Regulatory Requirements

RR HAZ-1 Construction activities at the Project site will comply with existing federal, State, and local regulations regarding hazardous material use, storage, disposal, and transport to prevent Project-related risks to public health and safety, including but not limited to the U.S. Department of Transportation regulations listed in the Code of Federal Regulations (Title 49, Hazardous Materials Transportation Act); California Department of Transportation (Caltrans) standards; and the California Occupational Safety and Health Administration (CalOSHA) standards. All on-site generated waste that meets hazardous waste criteria will be stored, manifested, transported, and disposed of in accordance with the *California Code of Regulations* (Title 22) and in a manner to the satisfaction of the local Certified Unified Program Agency (CUPA), the Los Angeles County Fire Department.

Impact Discussion

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

No Impact. The Project, including the new monitoring wells, would not involve the routine transport, use, or disposal of hazardous materials. The LFG Extraction System's media bed treatment system would be powered by electricity. In the event of a power outage, the system would cease operation until power is restored. As such, neither short-term construction activities nor long-term operations of the LFG Extraction System would require a fuel tank or back-up generator. As discussed in Section 3.0, Project Description, the media in the treatment system would periodically be exhausted and require replacement. The media filter would be carbon-based (e.g., activated carbon, coconut shells) and would not be classified as a hazardous material. The exhausted media would be removed from the treatment system, tested to ensure it meets non-hazardous waste classification, and disposed as non-hazardous waste in a Class II municipal landfill. Implementation of the Monitoring Plan would not use or generate any hazardous materials. There would be no impact related to the routine use of hazardous materials as part of the Project, and no mitigation is required.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than Significant Impact. Implementation of the Project, including the new monitoring wells, would involve the use of common hazardous materials, including oil and grease, solvents, diesel fuel, and other chemicals in vehicles, trucks, and heavy equipment. Construction of the Project would not require the use of acutely hazardous materials or substances. The proposed construction activities are small scale and would involve the limited transport, storage, use, and/or disposal of common construction-related hazardous materials. However, these materials could be released into the environment in small amounts in the event of an accident.

To prevent environmental hazards, the handling of hazardous materials used in construction equipment would have to be conducted in accordance with existing regulations (RR HAZ-1). These regulations include the transport of hazardous materials; on-site storage and use of hazardous materials; and procedures to implement in the event of a spill. In addition, under RR HYD-1, the Project would be constructed in compliance with the County's Stormwater and Runoff Pollution Control Ordinance, consistent with CALGreen requirements.

During the drilling of the up to five extraction wells (to depths of 40 to 45 feet deep) and two new monitoring wells (to depths of approximately 90 feet), spoils would accumulate at the surface from the displacement of the landfill cover and compacted waste and native soils, respectively, by the rotary augers used to drill the borehole for extraction well installation. Based on the landfill history and previous investigations performed within the former Cogen Landfill, the underlying waste material that would comprise the drilling spoils is anticipated to be classified as non-hazardous and would be disposed in a Class II landfill. However, prior to being accepted at a Class II landfill, a sample of the spoils from within the former landfill would be laboratory tested to confirm it is not a hazardous material, and the results of this testing would accompany the first load of waste from the drilling operations (Arora 2015). It is anticipated that the spoils generated at the both monitoring well locations would also be classified as non-hazardous and would be disposed in a Class II landfill, as these locations are situated in areas with no known hazardous material releases or industrial uses. Therefore, there would no impact related to hazardous materials during drilling or other excavation activities. Compliance with RR HAZ-1 and RR HYD-1 would

ensure that impacts related to use of common construction-related hazardous materials would be less than significant and no mitigation is required.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter-mile of an existing or proposed school?

Less than Significant Impact. There is one school within ¼ mile of the Project site and the new monitoring well locations: City Terrace Elementary School, located at 4350 City Terrace Drive approximately 0.13 mile to the northwest of the Project site in the community of City Terrace. The school is located approximately 700 feet (0.13 mile) from the new monitoring well location in Rollins Drive, at the nearest points. The school is located at an elevation of approximately 475 feet above msl, approximately 85 feet higher than the northern boundary of the landfill area at approximately 560 feet above msl. As such, the movement of emissions from the Project site to the west are partially obstructed by the sudden change in elevation. More importantly, as determined in the air quality analysis (Section 4.2 of this IS/MND), local and regional emissions of criteria air pollutants during construction and operation of the Project, including the new monitoring wells, would be below SCAQMD thresholds. Also, the monitoring wells – the Project components nearest to the school - would be constructed prior to the LFG Extraction System and the associated air quality emissions would be exceedingly low (refer to Table 4-4 in Section 4.3, Air Quality). As such, construction and operation would not involve emissions in quantities that could be considered hazardous. There would be a less than significant impact and no mitigation is required.

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. A hazardous materials records search, which meets and exceeds the federal records search requirements was conducted for the Project. The purpose of a hazardous materials records search is to help identify any known or suspected contaminant sites or incidents of hazardous waste storage or disposal that might have resulted in soil or groundwater contamination. The ERS RecCheck Report prepared for the Project site searched federal, State, local, and tribal hazardous materials databases for listed sites within a one-mile radius of the approximate center of the disturbance footprint. This radius includes the off-site Project component (i.e., the potential electrical connection). The ERS Report meets and exceeds the records search requirements under the American Society for Testing and Materials (ASTM) E 1528-05 and the USEPA Standards and Practices for All Appropriate Inquiries (40 *Code of Federal Regulations* [CFR] Part 312) by including supplemental databases not required under the ASTM/All Appropriate Inquiries (AAI) standards and ERS proprietary historic databases.

Within a one-mile radius of the approximate center of the Project site, a total of 56 sites were recorded on 22 databases; it is noted that individual sites are often included on multiple databases. The Project site is not identified on the Cortese List or any other hazardous material regulatory database (ERS 2014). The facilities within the Eastern Avenue Hill Complex that require various hazardous materials permits do not represent a hazard to the site or operation of the LFG Extraction System. In summary, the records search indicates there are no sites within or near the Project site that represent a known source of contamination or an otherwise unusually hazardous condition. There would be no impact related to identification on the Cortese List or any other hazardous materials database and no mitigation is required.

- e) **For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?**
- f) **For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?**

No Impact. There are no airports or airstrips within two miles of the Project site. The closest airport to the Project site is the El Monte Airport, which is located approximately eight miles northeast of the Project site. However, an LACSD helipad is located immediately south of the former Blanchard Landfill and approximately ¼ mile south-southeast of the location of the LFG Extraction System's media bed treatment system (see Exhibit 3-2, Surrounding Land Uses). However, construction and operation of the Project, including the new monitoring wells, would not adversely affect helicopter traffic due to height of Project components, glare generated by Project materials, or emissions of smoke or other gases during construction or operation of the Project that could obscure vision. There would be no impacts related to air traffic, including the nearby helipad, and no mitigation is required.

- g) **Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

Less than Significant Impact. Construction activities for the LFG Extraction System would be staged on the County-owned portion of the landfill and would not interfere with any current emergency response plans or emergency evacuation plans for local, State, or federal agencies. If the LFG Extraction System's electricity connection is located at the utility pole to the east of Sheriff Road, construction activity within Sheriff Road would involve closure of one lane at a time and would include traffic control measures per the LACDPW Graybook (RR TRA-1). Similarly, construction activities in Rollins Drive (i.e., monitoring well installation) would involve traffic control measures, to be reviewed and approved by the County of Los Angeles Department of Public Works as part of the required Encroachment Permit, per the LACDPW Graybook. RR TRA-1 would ensure that construction traffic would be managed in compliance with Graybook standards, as discussed in Section 4.16, Transportation, to ensure that Sheriff Road or Rollins Drive would not be impacted during Project construction in such a way that would physically impair or impede emergency response or evacuation. Therefore, implementation of RR TRA-1 would ensure that impacts related to emergency evacuation plans would remain less than significant.

- h) **Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?**

No Impact. The City of Monterey Park and the community of City Terrace are not designated as within a Very High Fire Hazard Severity Zone (VHFHSZ) (CAL FIRE 2011). The surrounding areas are developed with urban land uses. There would be no impact related to wildland fire and no mitigation is required.

MITIGATION MEASURES

There would be no significant impacts related to hazards and hazardous materials; therefore, no mitigation measures are required.

4.9	<u>HYDROLOGY AND WATER QUALITY</u>	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:					
a)	Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation onsite or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e)	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of pollutant runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f)	Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g)	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i)	Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j)	Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IMPACT ANALYSIS

Regulatory Requirements

RR HYD-1 The Project will comply with Section 5.106.1 et seq. of the California Green Building Standards Code (CALGreen) through compliance with a local storm water management/erosion control ordinance. Consistent with CALGreen requirements, the Project will be constructed in compliance with the County's Stormwater and Runoff Pollution Control Ordinance (Chapter 12.80 of the County Code), which identifies prohibited discharges and connections; facilities required to obtain an National Pollutant Discharge Elimination System permit; Best Management

Practices for construction activities and institutional facilities; and enforcement procedures.

Impact Discussion

- a) **Would the project violate any water quality standards or waste discharge requirements?**
- f) **Would the project otherwise substantially degrade water quality?**

Less than Significant Impact. Construction and operation of the Project, including the new monitoring wells, would not involve wastewater discharges that could violate standards or degrade water quality.

The total area of ground disturbance during construction of the LFG Extraction System, including the possible off-site electrical connection, would be less than one acre. Installation of the monitoring wells, which would occur well before construction of the LFG Extraction System, would also involve ground disturbance of less than one acre. Therefore, pursuant to CALGreen, projects disturbing less than one acre of land shall prevent storm water pollution during construction by (1) complying with a local storm water management/erosion control ordinance and/or (2) implementing an effective combination of erosion control and good housekeeping Best Management Practices (BMPs) to reduce or eliminate pollutants in storm water discharges (2013 CALGreen Section 5.106.1 *et. seq.*). For the Project, the first option is applicable as Chapter 12.80 of the County Code defines the County's Stormwater and Runoff Pollution Control Ordinance. The LFG Extraction System construction would be scheduled outside the rainy season (i.e., from approximately April to July). In the event that rain is forecast during the construction period, the appropriate BMPs—such as sandbags, silt fencing, and/or straw wattles—would be determined and implemented in compliance with the County ordinance. Compliance with RR HYD-1 regarding the implementation of the County's Stormwater and Runoff Pollution Control Ordinance (Chapter 12.80 of the County Code) for the Project would ensure that sediment and construction-related materials are not discharged from the site in storm water runoff.

Operation of the LFG Extraction System and implementation of the Monitoring Plan would not violate any water quality standards or waste discharge requirements, as it would not generate any new land use or introduce any new sources of wastewater discharge or effluent that could adversely impact wastewater. The Project would not generate wastewater that would require conveyance or treatment in on-site septic systems or at wastewater plants in the region. There would be less than significant impacts related to surface water quality and no mitigation is required.

- b) **Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?**

No Impact. Construction of the LFG Extraction System would involve limited use of water to suppress fugitive dust emissions during the localized, shallow grading activities. This water would be delivered to the site in a water truck. Installation of the new monitoring wells would not require water for dust suppression, as drilling spoils are typically not sufficiently dry to be a dust source. Operation of the Project, including the Monitoring Plan, would require no long-term water supply. For these reasons, implementation of the Project would not deplete groundwater supplies.

Although a portion of the Project site is underlain by a portion of the former Cogen Landfill and is not paved, the area is not irrigated. As discussed further under Threshold 4.9(c) below, construction of the LFG Extraction System would result in a minor increase in impervious surface area. Installation of the monitoring wells would not change the impervious surface area because the proposed well locations are in paved areas, and are already impervious surfaces. For these reasons, implementation of the Project would not interfere with groundwater recharge.

Therefore, the Project would not deplete groundwater supplies or interfere with groundwater recharge. There would be no impact and no mitigation is required.

- c) **Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation onsite or offsite?**
- d) **Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite?**

Less than Significant Impact. Implementation of the Project would result in a minimal increase in impervious surface area, primarily the 20-foot by 10-foot (200-sf) concrete pad for the LFG Extraction System's media bed treatment system. Each of the up to five 24-inch diameter extraction wells would have an individual cover and well head system, as shown in Exhibit 3-3. Due to their small size and distributed locations within the Project site, the extraction well heads and the pipelines (if aboveground) would have essentially no effect on the site's drainage pattern. Storm water runoff would flow over and around the 200-sf concrete pad and would continue to sheet-flow towards the storm drainage system as in the existing condition. Installation of the new monitoring wells would not change the impervious surface area because the proposed well locations are in paved areas, and are already impervious surfaces. Therefore, the presence of the Project components would not alter the drainage pattern or increase the rate or volume of storm water runoff such that on- or off-site erosion, siltation, or flooding would occur. There would be a less than significant impact and no mitigation is required.

- e) **Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of pollutant runoff?**

No Impact. As discussed in Threshold 4.9(c) and 4.9(d) above, implementation of the Project would not materially increase the rate or volume of storm water runoff. As discussed in Threshold 4.9(a), the Project would not result in additional sources of pollutant runoff (i.e., waste discharge). Therefore, the Project would have no impact on the capacity of the existing downstream storm water drainage system.

- g) **Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?**

h) Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No Impact. According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, the City of Monterey Park and the community of City Terrace does not lie within a 100-year flood zone (Monterey Park 2001, LACDRP 2015). There would be no impacts related to placement of housing or structures within a flood zone, and no mitigation is required.

i) Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

No Impact. The only flood hazards of concern involve the possibility of seiche or dam failure at Garvey Reservoir and Laguna Basin. According to Figure SCS-4, Flood Inundation Areas; Garvey Reservoir and Laguna, from the Monterey Park General Plan, the Project site and surrounding area, is not located within or near the inundation areas of these facilities (Monterey Park 2001). There would be no impact and no mitigation is required.

j) Would the project cause inundation by seiche, tsunami, or mudflow?

No Impact. Due to the distance of the Project site to the Pacific Ocean (approximately 30 miles to the west) and the numerous structures between the Project site and the ocean, there is virtually no risk of on-site hazard due to tsunamis (seismically induced waves). As discussed under Threshold 4.9(i), the Project site is not within an inundation area, including due to seiche, of Garvey Reservoir or Laguna Basin (Monterey Park 2001). Although there is a steep, partially vegetated slope in the northwest portion of the landfill area that could be susceptible to erosion during the rainy season, implementation of the Project would not cause or exacerbate the potential for landslide or mudflow on this slope. There would be no impacts related to tsunami, seiche, or mudflow, and no mitigation is required.

MITIGATION MEASURES

There would be no significant impacts related to hydrology or water quality; therefore, no mitigation measures are required.

4.10 LAND USE AND PLANNING	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IMPACT ANALYSIS

Regulatory Requirements

None required.

Impact Discussion

a) **Would the project physically divide an established community?**

No Impact. The Project does not involve the displacement of existing land uses or the construction of barriers across the Project site. There are no residential uses or established communities on the Project site. Installation of the monitoring wells would not displace existing land uses or affect circulation, including within Rollins Drive. There would be no impact related to dividing an established community.

b) **Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?**

No Impact. The City of Monterey Park General Plan land use designation for the landfill portion of the Project site is Employment/Technology (E/T). At present, the zoning is Office Professional (O-P) (Monterey Park 2014). New monitoring well location CMW-1 is within a public right-of-way; location CMW-2 has a County of Los Angeles land use designation of Public (P) and zoning of Institutional (IT)(LACDRP 2016).

While the southern portion of the Project site includes land uses associated with the County facilities of the LACSD and LACFD, which are considered employment-generating and professional land uses, there is no existing employment-generating development on the Project site. The Project would not require any change in existing land uses on the Project site, including the new monitoring wells, and would not require a General Plan amendment or zone change. Further, as the landfill portion of the Project site is County-owned, the LFG Extraction System installation would not be subject to the City's zoning requirements. Therefore, implementation of the Project would not conflict with any applicable land use plan, policy, or regulation of the City of Monterey Park or the County of Los Angeles adopted for the purpose of avoiding or mitigation an environmental effect. There would be no impact.

c) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. There is no habitat conservation plan or natural community conservation plan for the Project area. Also, the Project site and surrounding area is not located within a designated Significant Ecological Area (SEA) under the County's SEA program. There would be no impact.

MITIGATION MEASURES

There would be no impacts related to land use and planning; therefore, no mitigation measures are required.

4.11 MINERAL RESOURCES	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IMPACT ANALYSIS

Regulatory Requirements

None required.

Impact Discussion

- a) **Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**
- b) **Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?**

No Impact. The Monterey Park General Plan has no discussion of mineral resources, and the mineral resource recovery is not addressed in the City's Municipal Code. Because the site is underlain by a portion of the former Cogen Landfill, there is no potential for the presence of mineral resources. There would be no impact.

MITIGATION MEASURES

There would be no impacts related to mineral resources; therefore, no mitigation measures are required.

4.12 NOISE	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IMPACT ANALYSIS

Regulatory Setting

Public agencies have established noise guidelines and standards to protect citizens from potential hearing damage and other various adverse physiological and social effects associated with noise. The Project site is located in the City of Monterey Park, and the new monitoring wells are located in the County. The noise- and vibration-sensitive receptors to the west and northwest of the Project site are in the City Terrace neighborhood in the East Los Angeles unincorporated area of Los Angeles County. Therefore, both Monterey Park and Los Angeles County standards are discussed.

Los Angeles County Noise and Vibration Standards

Chapter 12.08 et seq. of the County of Los Angeles Code (County Code) contains the County Noise Ordinance. The County Noise Ordinance prohibits unnecessary, excessive, and annoying sounds from sources on private properties by setting limits that cannot be exceeded at adjacent properties. The County's Noise Ordinance requirements are not applicable to mobile noise sources such as automobiles or heavy trucks when traveling in a legal manner on public roadways or on private property. Mobile noise source control is preempted by federal and State laws.

Construction

Section 12.08.440 of the County Code prohibits construction noise between the hours of 7:00 PM and 7:00 AM on weekdays (including Saturday), and at any time on Sunday or a federal holiday

if it creates a disturbance across a residential or commercial real-property line. The County also sets maximum construction noise levels “at residential structures”. As shown in Table 4-7, County of Los Angeles Construction Equipment Noise Limits, the daytime noise level limit at single-family residences for mobile construction equipment is 75 dBA.

**TABLE 4-7
COUNTY OF LOS ANGELES CONSTRUCTION EQUIPMENT NOISE LIMITS**

Time Interval	Single-Family Residential (dBA)	Multi-Family Residential (dBA)	Semi-Residential or Commercial (dBA)
Mobile Equipment – noise levels for short-term operation (less than 10 days)			
Daily, except Sundays and legal holidays, 7:00 AM to 8:00 PM	75	80	85
Daily, 8:00 PM to 7:00 AM, and all day Sunday and legal holidays	60	64	70
Stationary Equipment			
Daily, except Sundays and legal holidays, 7:00 AM to 8:00 PM	60	65	70
Daily, 8:00 PM to 7:00 AM, and all day Sunday and legal holidays	50	55	60
dBA: A-weighted decibels			
Source: County 2014			

The County of Los Angeles noise standard for sensitive residential areas due to nonscheduled, intermittent, short-term operations of mobile construction equipment for less than 30 days is a maximum noise level (L_{max}) of 75 A-weighted decibels (dBA). The County of Los Angeles noise standard for construction noise for sensitive residential areas is 60 dBA L_{max} for stationary equipment that would operate for 10 consecutive working days or more. Stationary equipment operated for less than 10 days has a maximum noise standard of 75 dBA L_{max} .

Operation

Section 12.08.390, Exterior Noise Standards, of the County Code states “Unless otherwise provided herein, no person shall operate or cause to be operated, any source of sound at any location in the unincorporated county, or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person which causes the noise level, when measured on any other property either incorporated or unincorporated, to exceed any of the following exterior noise standards:...”. For the Project, pursuant to Section 12.08.390(A), the applicable exterior noise standard defined for residential properties (i.e., the residences to the northwest of the Project site) an exterior noise level of 50 dBA between 7:00 AM and 10:00 PM (daytime) and 45 dBA between 10:00 PM and 7:00 AM (nighttime) for a cumulative period of more than 30 minutes in any hour.

Vibration

Section 12.08.560, Vibration, of the County Code states “Operating or permitting the operation of any device that creates vibration which is above the vibration perception threshold of any individual at or beyond the property boundary of the source if on private property, or at 150 feet (46 meters) from the source if on a public space or public right-of-way is prohibited. The perception threshold shall be a motion velocity of 0.01 in/sec over the range of 1 to 100 Hertz.”

City of Monterey Park Noise and Vibration Standards

Noise is addressed in the Monterey Park Municipal Code, Title 9, Peace, Safety, and Morals, Chapter 9.53, Noise. Section 9.53.040, Noise standards, states “No person shall, at any location within the city, create or allow the creation of noise on any property which causes the noise level to exceed the applicable noise standards...”, wherein “The noise standards shall be the actual measured median ambient noise level or the following presumed ambient noise level [as shown in Table 4-8, Monterey Park Noise Limits], whichever is greater.”

**TABLE 4-8
MONTEREY PARK NOISE LIMITS**

Noise Zone	Time	Allowable Noise Level (dBA)
I. Residential	7:00AM–10:00 PM	55
	10:00 PM–7:00 AM	50
II. Commercial	7:00 AM–10:00 PM	65
	10:00 PM–7:00 AM	55
III. Industrial	Anytime	70
dBA: A-weighted decibels		
Source: Monterey Park Municipal Code, Section 9.53.040.		

Section 9.53.040(3) states “If the property where the noise is received is located on the boundary between two different noise zones, the lower noise level standard applicable to the quieter zone shall apply.”

Section 9.53.070, Exemptions, includes those activities exempt from the provisions of Chapter 9.53, Noise, and states “Construction or demolition work conducted between the hours of seven a.m. and seven p.m. on weekdays and the hours of nine a.m. and six p.m. on Saturdays, Sundays and holidays.”

Section 9.53.010, Declaration of policy, states “certain noise levels and vibration are detrimental to the public health, welfare and safety, and are contrary to public interest”. However, there are no City of Monterey Park vibration standards applicable to the Project.

Regulatory Requirements

Although the City’s noise ordinance is not applicable on County property, construction of the Project would comply with the standards for the most restrictive construction hours among both the County and City noise standards, as presented in RR NOI-1.

RR NOI-1 In compliance with the City of Monterey Park Municipal Code and the County Code, Project construction activities that generate substantial noise (e.g., the operation of construction equipment and mechanical equipment) will be limited to the hours of 7:00 AM to 7:00 PM on weekdays and 9:00 AM to 6:00 PM on Saturdays.

Impact Discussion

- a) **Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

- d) **Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?**

Less than Significant Impact with Mitigation. Existing noise at the landfill portion of the Project site is primarily from vehicle traffic on Sheriff Road, with background noise from I-710, approximately ¼ mile to the east. Therefore, the noise levels in the Project area, including at the residences west of the Project site, are expected to be typical of urban residential areas, with an hourly average (L_{eq}) ranging from 45 to 55 dBA in the daytime and 40 to 50 dBA L_{eq} at night. It is noted that the LACSD helipad located to the east of Cogen Landfill is another dominant, though periodic, existing noise source.

Existing ambient daytime noise levels were measured by BonTerra Psomas at two locations proximate to the site of each new monitoring well on April 13, 2016, between 11:00 AM and 12:15 PM, as these are the locations of proposed construction activity nearest to residences. The noise survey data are provided in Appendix B. The noise levels were measured using a Larson-Davis Model 831 sound level meter, which satisfies the American National Standards Institute for general environmental noise measurement instrumentation. The sound level meter with microphone was mounted on a tripod five feet above the ground and equipped with a windscreen during all measurements. The sound level meter was programmed in “slow” mode to record noise levels in “A” weighted form. Meteorological conditions during the measurement periods were favorable and representative of the typical conditions, with clear skies and calm winds.

The average (L_{eq}), maximum (L_{max}), and minimum (L_{min}) noise levels measured and sources of noise at each location are identified in Table 4-9, Existing Ambient Noise Levels near Proposed Monitoring Well Locations. As shown, the average daytime noise levels in the neighborhood near the monitoring well locations are generally 51 to 52 dBA L_{eq} , with intermittent higher noise levels from aircraft overflights and typical residential sounds of local traffic, home construction, barking dogs, crowing roosters, and landscape maintenance. During the survey, the average daytime noise level at Monitoring Location 1 (Rollins Drive) was 51 dBA L_{eq} . The primary noise sources at this location were airplane overflights and barking dogs; vehicular noise was minimal at this location. The average daytime noise level at Monitoring Location 2 (Watland Avenue) was 52 dBA L_{eq} . The primary noise sources at this location were airplane overflights and a crowing rooster. There was no vehicle noise at this location during the noise monitoring.

**TABLE 4-9
EXISTING AMBIENT NOISE LEVELS NEAR PROPOSED
MONITORING WELL LOCATIONS**

Measurement No.	Location, Date, and Time	Noise Levels (dBA)			Primary Noise Source/Notes
		L _{eq}	L _{max}	L _{min}	
1	<ul style="list-style-type: none"> Southern terminus of Rollins Drive, north of private gate April 13, 2016, 11:00 AM – 11:30 AM 	51	70	44	Two airplane overflights; barking dog; 1 heavy truck; sirens. L _{max} was dog and airplane overhead.
2	<ul style="list-style-type: none"> Southern terminus of Watland Avenue, north of Los Angeles County Fire Department facility April 13, 2016, 11:43 AM – 12:13 AM 	52	72	45	Two airplane overflights; crowing rooster; no vehicle traffic; L _{max} was crowing rooster.

dBA: A-weighted decibel(s); L_{eq}: equivalent energy noise level; L_{max}: maximum instantaneous noise level; L_{min}: minimum instantaneous noise level;
Note: Noise survey data is provided in Appendix ____.

Noise-sensitive or vibration-sensitive land uses in the vicinity of the Project site are residences west of the northern portion of the Project site on Rollins Street, Loren Street, and Watland Avenue in the unincorporated community of City Terrace. These residential land uses are located at the top of the approximate 75-foot-high slope located in the northwestern portion of the landfill and at a distance of more than 100 feet from the planned landfill work areas. There are no sensitive noise receptors near the Project site to the north, east, or south.

The City of Monterey Park has not adopted quantitative noise standards for construction activity. Therefore, in order to quantitatively assess construction noise impacts, the County of Los Angeles noise standards have been used in this analysis. As there are sensitive receptors in the County (residences near the top of the 75-foot high slope) and there are no sensitive receptors in the City of Monterey Park, as the nearest land uses are LACFD and LACSD facilities, the analysis using the County's noise standards is appropriate.

Temporary noise impacts associated with the Project would include the monitoring well drilling and the LFG Extraction System installation, which includes extraction well drilling. Typically, the primary noise sources during construction of a project are generated by the diesel engines of construction equipment and the impact noise from operations such as pile driving, blasting, and jackhammering. No pile driving or blasting activities are anticipated for the Project; jackhammering may be used if pavement demolition is required for electrical utilities relocation.

Heavy construction equipment can be considered to operate in two modes: stationary and mobile. Stationary equipment operates in one location for one or more days at a time, with either a fixed-power operation (such as pumps, generators and compressors) or a variable noise operation (such as drills and pavement breakers). Mobile equipment moves around the construction site with power applied in cyclic fashion, such as bulldozers, graders, and loaders. Noise impacts from stationary equipment are assessed from the location of the specific equipment, while noise impacts from mobile construction equipment are assessed from the center of the equipment activity or construction site. The noise level at a receptor is dependent on the distance from the source to the receptor and the intervening topography and ground cover.

Variation in power is also a factor in characterizing the noise source levels from construction equipment. Power variation is accounted for by describing the noise at a reference distance from equipment operating at full power and adjusting it based on the duty cycle of the activity to

determine the L_{eq} of the operation.⁸ Typical duty cycles and noise levels generated by representative pieces of equipment for the Project are listed in Table 4-10, Typical Maximum Construction Equipment Noise Levels for Selected Equipment.

**TABLE 4-10
TYPICAL MAXIMUM CONSTRUCTION EQUIPMENT NOISE LEVELS
FOR SELECTED EQUIPMENT**

Equipment	Maximum Noise Level (dBA) at 50 ft	Typical Duty Cycle
Auger Drill Rig	85	20%
Backhoe	80	40%
Concrete Mixer Truck	85	40%
Front End Loader	80	40%
Generator (25 KVA or less)	70	50%
Jackhammer	85	20%
dBA: A-weighted decibels; ft: feet; KVA: kilovolt amps		
Source: Thalheimer 2000.		

As described in RR NOI-1, all construction activities would be limited to the hours of 7:00 AM to 7:00 PM on weekdays and 9:00 AM to 6:00 PM on Saturdays. Construction activities would include monitoring well drilling, grading, extraction well drilling, trenching and backfilling (if piping is installed below the surface); pouring of the concrete slab for the LFG Extraction System; and installing the LFG Extraction System. Construction equipment for the Project would include a front-end loader/backhoe, a drill rig, a forklift, and a concrete truck. Maximum noise levels (L_{max}) from a single piece of equipment expected to be used as part of the Project, as shown in Table 4-10 could be 85 dBA at a distance of 50 feet, and would occur intermittently when the equipment is at full power. Average noise levels from, for example, a concrete truck and a front end loader operating concurrently, could be 83 dBA L_{eq} at 50 feet.

Monitoring Well Drilling and Installation

As described in Section 3.2.1, the new monitoring wells would be installed using a track-mounted hollow stem auger drill rig. Each of the two wells would be drilled and installed in one day. Within the eight-hour workday, it is expected that five to six hours would include drill rig operation. All workers and related equipment would be staged immediately around the monitoring well location during the one-day installation period.

As shown on Exhibit 2-3, monitoring well CMW-1 would be located in Rollins Drive, south of the intersection with Loren Street. There is one residence directly opposite and approximately 35 feet west of the CMW-1 site. The closest residences to the south and north are approximately 80 feet from the CMW-1 site. As shown in Table 4-10, an auger drill rig would have a maximum noise level of 85 dBA L_{max} at a distance of 50 feet. With a 20 percent duty cycle, the average (not maximum) noise level would be 78 dBA L_{eq} at 50 feet. Based on this, exterior noise levels at the property line of the residence opposite the CMW-1 site would be 81 dBA L_{eq} during operation of the auger drill rig. Therefore, MM NOI-1 would be implemented to require the installation of a noise barrier between the drill rig and the nearest residence to CMW-1 to reduce noise levels while allowing operation of the drill rig. MM NOI-1 also requires notification of the residents of the closest home to advise that there would be one day of drilling activity. The implementation of MM

⁸ The duty cycle is the percentage of time that the equipment is typically at full power.

NOI-1 would reduce noise levels such that it would not exceed 75 dBA L_{eq} at the residence. Implementation of MM NOI-1 would reduce the noise levels associated with drilling activity at CMW-1 such that the noise level would not be considered “a substantial temporary or periodic increase in ambient noise levels” and would be mitigated to less than significant pursuant to CEQA.

At the residences 80 feet north and south of the CMW-1 drill site, average drilling noise levels without implementation of MM NOI-1 would be approximately 74 dBA L_{eq} , and would be lower with implementation of MM NOI-1. The impact would be less than significant at this location.

The closest residence to the CMW-2 drill site is approximately 180 feet to the north. At that distance average drilling noise levels without implementation of MM NOI-1 would be approximately 67 dBA L_{eq} , which is less than the noise ordinance limit of 75 dBA L_{eq} . The impact would be less than significant at this location.

LFG Extraction System Construction

There is no direct line of sight from the residences northwest of the Project site to the LFG Extraction System because of the steep slope between them. The combination of distance (more than 120 feet) and the barrier to the line of sight would reduce construction noise by at least 11 dBA and likely by 15 dBA or more. Construction noise would be occasionally audible at the nearest residences, but would be less than the County limits of 75 dBA for single-family residences and 80 dBA for multi-family residences (Table 4-8). The impact would be less than significant and no mitigation is required.

There are no commercial receptors within 50 feet of the Project site. Therefore, construction noise would be less than the County limit of 85 dBA for commercial receptors that are further than 50 feet from the Project site. The impact would be less than significant and no mitigation is required.

b) Would the project result in exposure of persons to or generate excessive groundborne vibration or groundborne noise levels?

Less than Significant Impact with Mitigation. Groundborne vibration generated by construction activities is usually highest during pile driving, blasting, soil compacting, jack-hammering, and demolition-related activities. No blasting or pile driving would be required; however, the Project may require jackhammers for the potential off-site electrical line connection for the LFG Extraction System.

Vibration levels are usually expressed as single-number measurements of vibration magnitude (in terms of velocity or acceleration), which describes the severity of the vibration. The peak particle velocity (ppv) is defined as the maximum instantaneous positive or negative peak of the vibration signal, usually measured in inches per second (in/sec).

Table 4-11, Vibration Levels during Construction, summarizes typical vibration levels measured during construction activities for various vibration-inducing pieces of equipment at a distance of 25 feet and at a distance of 120 feet. Neither the California Department of Transportation (Caltrans) *Transportation and Construction Vibration Guidance Manual* nor the Federal Transit Administration (FTA) *Transit Noise and Vibration Assessment*, the common references for construction vibration impact, provide quantitative vibration data for auger drill rigs. However, a study for the Washington State Department of Transportation provides a reference value of 0.011 ppv in/sec at 100 feet (WSDOT 2013). This value is equivalent to approximately 0.05 ppv in/sec at 25 feet.

LFG Extraction System Construction and Installation

Table 4-11, Vibration Levels During Construction, shows the vibration levels at a distance of 120 feet, which is the minimum distance for vibration to travel between the LFG extraction system work areas and the closest residences. Vibration levels would not exceed the County limit of 0.01 inch per second. The impact would be less than significant and no mitigation is required.

**TABLE 4-11
VIBRATION LEVELS DURING CONSTRUCTION**

Equipment	ppv at 25 ft (in/sec)	ppv at 120 ft (in/sec)
Loaded trucks	0.076	0.010
Jackhammer	0.035	0.005
Small bulldozer	0.003	<0.0005
ppv: peak particle velocity; ft: feet; in/sec: inches per second.		
Source: Caltrans 2013.		

Monitoring Wells Drilling and Installation

Drilling of monitoring well CMW-1 could result in vibration levels of 0.4 to 0.5 ppv in/sec at the residence immediately west of the drill site. The vibration would be distinctly perceptible but neither strongly perceptible nor potentially damaging to the structure. Because the drilling would be done in a public right-of-way and the house is less than 150 feet from the source, the limit of the County noise ordinance is not applicable. Nonetheless, MM NOI-1 also includes a requirement to advise the nearest residents that drilling may result in perceptible vibration. Considering that feasible measures to reduce the drilling noise level would be implemented (MM NOI-1) and that the drilling activity would have a duration of less than one day (anticipated to be five to six hours), the vibration impact at the residence west of monitoring well site CMW-1 would be less than significant.

At the residences 80 feet north and south of the CMW-1 drill site, vibration levels would be approximately 0.014 in/sec ppv. A vibration level 0.01 in/sec ppv is considered barely perceptible. As such, this vibration level would be considered a less than significant impact.

The closest residence to the CMW-2 drill site is approximately 180 feet to the north. At that distance the vibration level would be approximately 0.009 in/sec ppv, which would not be perceptible. There would be a less than significant impact. Neither operation of the LFG Extraction System or sampling of the monitoring wells would produce notable vibrations. There would be no operational vibration impact.

- a) **Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**
- c) **Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?**

Less than Significant. The primary and only notable noise source from the Project would be the blower on the LFG Extraction System’s media bed treatment system. The manufacturer has stated that noise levels would not exceed 85 dBA at a distance of 3 feet. There is no direct line of site from the residences west of the Project site to the landfill area because of the steep slope

between them. The combination of distance (more than 120 feet), the absorptive nature of the slope, and the barrier to the line of sight would reduce operational noise by at least 40 dBA and likely by 45 dBA or more. Because the LFG Extraction System would run continuously, the application of nighttime noise standards is appropriate. The noise level at the nearest residences, without any noise-reduction measures, would be 45 dBA or less and would not exceed the applicable Monterey Park standard of 50 dBA or the more conservative County standard of 45 dBA. Therefore, it is anticipated that blower noise would not be audible at the nearest residences west of the Project site in the community of City Terrace. The impact would be less than significant, and no mitigation is required.

- e) **For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?**

No Impact. The Project would not develop land uses that would locate persons in an area subject to noise from public airports, nor would the Project generate aircraft noise. There is no public airport within two miles of the site. The closest public airport to the Project site is the El Monte Airport (also called the San Gabriel Valley Airport), approximately eight miles to the northeast. There would be no impact.

- f) **For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?**

No Impact. The Project would not develop land uses that would locate persons in an area subject to noise from private airports or airstrips. There would be no impact.

MITIGATION MEASURES

- MM NOI-1** When drilling at the CMW-1 monitoring well location, the County shall require the drilling contractor to install a noise barrier to the height of the engine compartment of the auger plus two feet for drilling occurring proximate to the residence west of the CMW-1 location on Rollins Drive. This sound barrier shall have a minimum density of 4 pounds per square foot or a sound transmission class of 20 decibels or greater. The sound barrier shall cover the width of the drilling plus a minimum of a four foot side panel. The configuration of the overall sound barrier will be similar to the letter C, and be placed between the residence and the drill rig. Additionally, not less than 30 calendar days prior to drilling, the County will notify the resident(s) of the home immediately west of the CMW-1 location of the date and hours of the planned drilling, and that the drilling will be a noise-generating operation that may also produce perceptible vibration. The County will use U.S. Postal Service Certified Mail or overnight delivery service to obtain proof of delivery to the above-specified home without requiring a signature. If the schedule for the CMW-1 drilling changes subsequent to notifying the resident(s) and obtaining confirmation of notification delivery, the County will repeat the notification procedure once the drilling activity is rescheduled. If the rescheduled date is less than 30 calendar days in the future, the notification will be delivered as soon as feasible.

4.13 <u>POPULATION AND HOUSING</u>	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through the extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IMPACT ANALYSIS

Regulatory Requirements

None required.

Impact Discussion

- a) **Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through the extension of roads or other infrastructure)?**

No Impact. The Project site does not include residential homes or land uses. The closest and only nearby residential land use are the homes located at the top of the approximate 75-foot slope in the northwest corner of the landfill in the unincorporated community of City Terrace. The Project would not include the construction of any habitable structures or other land uses that could induce population growth, nor does it involve the extension of new infrastructure that could serve future populations. Therefore, the Project would not directly induce population growth.

The Project would bring in County staff, contractors, and other authorized personnel to the Project site for the duration of the construction period – approximately two days for installation of the monitoring wells in September 2016 and approximately eight months for the LFG Extraction System beginning in November 2017. Implementation of the Monitoring Plan would bring a once-monthly visit for sampling, and operation of the LFG Extraction System would bring once- or twice-monthly maintenance visits by County staff or consultants. However, these workers are not expected to generate a demand for housing, goods or services, nor would they change land uses in the area. The local population (i.e., in Los Angeles County) could provide adequate skilled workers to satisfy the construction- and operation-related positions, and there would be no need to relocate workers from other areas. Thus, no indirect change in the population and housing of the City of Monterey Park or the immediately surrounding area is expected with the presence of County staff, construction crews, and/or other authorized personnel on and near the site.

- b) **Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?**

c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. The Project site does not include residential homes or land uses. Therefore, the Project would not displace housing or an existing population on the site. There would be no impact.

MITIGATION MEASURES

There would be no impacts related to population and housing; therefore, no mitigation measures are necessary.

4.14 PUBLIC SERVICES	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IMPACT ANALYSIS

Regulatory Requirements

None required.

Impact Discussion

a) **Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:**

- **Fire protection?**
- **Police protection?**
- **Schools?**
- **Parks?**
- **Other public facilities?**

No Impact. As discussed under Threshold 4.13(a) above, the Project would not involve the construction or operation of structures or infrastructure improvements that could directly or indirectly induce population growth that would generate demand for additional fire protection, law enforcement, schools, parks, libraries, or other public services.

Although the majority of the Project site is in the City of Monterey Park, on-site fire protection and law enforcement services for the Eastern Hill Complex, which includes the Project site, are provided by the LACSD and LACFD located in the nearby County facilities. It is noted there is an existing LFG Extraction System operating at the Eastern Hill Complex to the east of the former

landfill in the parking lot of the LACSD training facilities. This system is approximately twice the size as the Project and has been in operation since 2013. To date, there have been no security, fire or other hazard-related incidents with that existing LFG Extraction System. Like the existing system, the Project would not require the long-term use of flammable, combustible, or explosive materials.

Temporary Project-related activities, such as the presence of construction equipment on the landfill area overnight, may provide increased opportunities for theft. The landfill-related construction areas would be fenced and the County's Contractor would be required to secure building materials and construction equipment to prevent theft and vandalism from occurring at the landfill during construction. Installation of the monitoring wells would be completed within one day; therefore, there would be no construction equipment or other materials remaining in these locations to attract theft. Additionally, there would be no unusually valuable or out of the ordinary equipment or materials associated with Project implementation that would generate an unusual attraction for theft. There would be no new demands for sheriff protection services that could result in new or physically altered sheriff facilities.

The Project would not generate demand for any public service such that new or expanded physical facilities are required, whose construction could result in an environmental impact. There would be no impact.

MITIGATION MEASURES

There would be no impacts related to public services; therefore no mitigation measures are required.

4.15 RECREATION	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would/does the project:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

IMPACT ANALYSIS

Regulatory Requirements

None required.

Impact Discussion

- a) **Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**
- b) **Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?**

Less than Significant Impact. As discussed under Threshold 4.13(a) above, the Project would not involve the construction or operation of structures or infrastructure improvements that could directly or indirectly induce population growth that would generate demand for additional recreational facilities.

It is noted that the sidewalk on the east side of Sheriff Road is frequently used by Eastern Avenue Hill Complex staff and local residents as a walking path. Implementation of the Project would not interfere with the continued short-term or long-term use of this path. If the off-site electrical connection is implemented, the sidewalk would be temporarily blocked while the utility is installed across this segment of the alignment, which would require approximately one to two days wherein pedestrian access could be detoured around the utility construction activities. This detour would be part of the Traffic Control Plan that would be implemented in compliance with the LACDPW's *Standard Specifications for Public Works Construction* (Graybook), per RR TRA-2 presented in Section 4.16, Transportation/Traffic below. Additionally, the lengthy segments of the Sheriff Road sidewalk to the north and south and the utility construction activity, if required, would remain available for public use. Impacts would be less than significant and no mitigation is required.

The Project would not increase the use of existing park or recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. Also, the Project does not involve the construction or expansion of recreation facilities. There would be no impact.

MITIGATION MEASURES

There would be no impacts related to recreation; therefore, no mitigation measures are required.

4.16 <u>TRANSPORTATION/TRAFFIC</u>	Potentially Significant Impact	Less Than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system. Including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IMPACT ANALYSIS

Regulatory Requirements

RR TRA-1 The County's general construction requirements require the implementation of temporary traffic control in accordance with the Los Angeles County Department of Public Works' *Standard Specifications for Public Works Construction* (Graybook), which contains standards for traffic and access (i.e., maintenance of access, traffic control, and notification of emergency personnel).

Impact Discussion

- a) **Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**

Less than Significant Impact. Construction of the LFG Extraction System would generate trips associated with construction workers and equipment delivery. It is expected that up to six workers would be present at the Project site, depending on the tasks being performed. Construction workers and County staff would arrive and depart in passenger vehicles each workday (i.e., Monday through Saturday) and would park on Sheriff Road or in the parking lot immediately northeast of the site. Construction equipment and materials associated with the LFG Extraction System would be delivered periodically, as needed for Project implementation. It is expected that once construction equipment is transported to the landfill area that it would remain on site until no longer needed. There would be no soil import or export and associated truck trips. When considering the trips from both the maximum number of construction workers and construction equipment delivery, there could be up to approximately 10 to 12 additional daily trips, largely in the AM peak hour or before, as construction activity can begin at 7:00 AM. This volume of additional traffic on Sheriff Road and other roads in the Project area would not reduce the effectiveness of the local circulation system.

Installation of the monitoring wells would generate trips associated with construction workers (e.g., drill rig crew, additional workers), well materials delivery, transport of the track-mounted drill rig, and export of the spoils. All workers and related equipment would be staged immediately around the monitoring well location during the one-day installation period. Installation of the well location on Rollins Drive would require an Encroachment Permit issued by the County of Los Angeles. Traffic flow around this well location would be managed with traffic control devices such as cones, signs, and/or flagmen, to be specified in the Traffic Control Plan required for the Encroachment Permit, and prepared pursuant to the LACDPW's Graybook (RR TRA-1). There could be up to approximately three to four additional daily trips. Also, the spoils from the monitoring well installation would be shoveled into a small truck (i.e., pickup truck or small haul truck) to be exported off-site for disposal. A total of one truck trip per monitoring well location is expected. This volume of additional traffic on Rollins Drive and other roads in the Project area would not reduce the effectiveness of the local circulation system.

Operation of the Project would involve once-weekly maintenance visits to the LFG Extraction System by County staff or contractors during the initial phase (approximately two months) after the Project is fully installed and commissioned, followed by one to two visits per month. Within two weeks of the monitoring well installation, the initial monthly reading of the probes in the newly installed wells would occur. Subsequently, monthly readings of the two new monitoring wells, four existing wells, and surface locations would begin. Similar to the analysis of routine traffic associated with LFG Extraction System maintenance, this negligible level of traffic would have no effect on the local circulation system. Therefore, with implementation of RR TRA-1, there would be less than significant impacts and no mitigation is required.

There would be no impact to the use of mass transit systems. As discussed in Section 4.15, Recreation, the sidewalk on the east side of Sheriff Road is frequently used by Eastern Hill Complex staff and local residents as a walking path. If the off-site electrical connection is implemented, the sidewalk would be temporarily blocked while the utility is installed across this segment of the alignment, which would require approximately one to two days wherein pedestrian

access could be detoured around the utility construction activities in compliance with the Traffic Control Plan pursuant to the LACDPW's Graybook (RR TRA-1). Additionally, the lengthy segments of the Sheriff Road sidewalk to the north and south and the utility construction activity, if required, would remain available for public use. As such, this would not be considered a significant environmental impact.

- b) **Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand established by the county congestion management agency for designated roads or highways?**

No Impact. The Los Angeles County Congestion Management Program (CMP) guidelines for Traffic Impact Analysis (TIA) require analysis of freeway segments, ramps, and intersections if a proposed project would add 150 or more trips (in either direction) during either the AM or PM weekday peak periods at any CMP location. Implementation of the Project would not add more than 50 trips at any CMP arterial monitoring station during the AM or PM peak hour, nor would it add 150 or more trips to the freeway system during construction or operation. There would be no impact and no mitigation is required.

- c) **Would the project result in a change in air traffic patterns, including either an increase in traffic levels or change in location that results in substantial safety risks?**

No Impact. The Project would not increase or otherwise affect air traffic patterns, including air traffic associated with the LACSD helipad at the Eastern Avenue Hill Complex. There would be no impact, and no mitigation is required.

- d) **Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

No Impact. The Project would not involve any change to the road configurations in the Project area. Long-term operation of the LFG Extraction System and implementation of the Monitoring Plan would have no effect on Sheriff Road or Rollins Drive, respectively, such that it would represent an incompatible use. There would be no impact and no mitigation is required.

- e) **Would the project result in inadequate emergency access?**

Less than Significant Impact. If the electricity connection is located at the utility pole to the east of Sheriff Road, demolition of the existing paving over an approximate 100-linear-foot distance (from the edge of the site to the pole) would be required. An approximate two-foot-wide by three-foot-deep trench encased in concrete would be constructed to contain the electric line, and the ground surface would be returned to its existing condition (e.g., backfill, pavement, concrete curb) once the utility connection is complete. Construction activity within Sheriff Road would involve closure of one lane at a time, to ensure continuous traffic access along Sheriff Road, and would include traffic-control measures per the LACDPW Graybook (RR TRA-2). Similarly, monitoring well installation in Rollins Drive would involve traffic control measures, to be reviewed and approved by the County of Los Angeles as part of the required encroachment permit, per the LACDPW Graybook. In addition, RR TRA-1 would require that the movement of large equipment on public roadways be made in compliance with Title 16 of the County Code. Accordingly, measures to ensure emergency access would be implemented. Therefore, impacts related to emergency access would be less than significant and no mitigation is required.

f) Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

No Impact. Implementation of the Project would not create a demand for alternative transportation systems and would not affect public transit services such that a conflict with alternative transportation policies would occur. No demand for public transit, bicycle, or pedestrian facilities would be created by the Project since there would be no change to land uses in the Project area, which could then result in a policy conflict. There would be no impact and no mitigation is required.

MITIGATION MEASURES

There would be no significant impacts related to transportation/traffic; therefore, no mitigation measures are required.

4.17 UTILITIES AND SERVICE SYSTEMS	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has inadequate capacity to serve the Project's Projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

IMPACT ANALYSIS

Regulatory Requirements

RR UTL-1 Construction activities on the Project site will be conducted in compliance with Chapter 20.87 (Construction and Demolition Debris Recycling and Reuse) of the Los Angeles County Code, which requires at least 50 percent of all Construction and Demolition (C&D) debris, soil, rock, and gravel removed from the Project site to be recycled or reused unless a lower percentage is approved by the Los Angeles County Director of Public Works.

Impact Discussion

- a) **Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?**
- e) **Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

No Impact. The Project would not generate wastewater that would require conveyance or treatment in on-site septic systems or at wastewater plants in the region. As such, the Project would not result in the need for new or expanded treatment facilities. There would be no impact and no mitigation is required.

- b) **Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**
- d) **Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?**

No Impact. The Project would require a limited amount water for the control of fugitive dust during localized grading activities; this water would be provided by a water truck on an as-needed basis. Water for dust control would be sourced from municipal water supplies and trucked to the Project site; however, the amount of water would be limited. Operation of the Project would not require any water supplies and would not involve any new landscaping or associated irrigation. Therefore, the Project would not need new water supplies, tanks, pumps, or other water system facilities. There would be no impact and no mitigation is required.

- c) **Would the project require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

No Impact. There is no storm drain infrastructure located on the County-owned portion of the landfill. Implementation of the Project would result in a minimal increase in impervious surface area, primarily the 20-foot by 10-foot (200 sf) concrete pad for the media bed treatment system. Each of the up to five 24-inch diameter extraction wells would have an individual cover and well head system, as shown in Exhibit 3-5. Due to their small size and distributed locations within the Project site, the extraction well heads would have essentially no effect on the site's drainage pattern. Storm water runoff would flow over and around the 200-sf concrete pad, and continue to sheet-flow towards the storm drainage system as in the existing condition. Installation of the monitoring wells would not change the impervious surface area because the proposed well locations are in paved areas, and are already impervious surfaces. As discussed in Section 4.9, Hydrology and Water Quality, implementation of the Project would not alter the existing drainage pattern and would not increase the rate or volume of storm water runoff. Therefore, the Project would have no impact on the capacity of the existing storm water drainage system such that new or expanded facilities would be required, and no mitigation is required.

- f) **Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?**
- g) **Would the project comply with federal, state, and local statutes and regulations related to solid waste?**

Less than Significant Impact. Construction of the Project would generate a small, finite volume of solid waste, including green waste, packaging materials, drilling spoils, and demolition debris (e.g., asphalt, concrete, fill materials) if the off-site electricity connection is implemented. Additionally, all waste generated during construction of the Project would be handled and disposed of in compliance with all applicable federal, State, and local statutes and regulations related to solid waste, including RR UTL-1, which requires at least 50 percent of all C&D debris to be recycled or reused. The total volume of construction waste is expected be minimal, and include approximately 4 cy of drilling spoils for each monitoring well; less than a single 10-cy truck for disposal of the drilling spoils for each extraction well, (i.e., no more than 50 cy); and the equivalent of a single 10-cy truck for all remaining solid waste, such as vegetation, construction packaging, and inert demolition debris (e.g., paving, concrete, fill) if the off-site electric connection is implemented. In total, construction of the Project would generate less than 75 cy of solid waste

prior to implementation of the County's C&D Ordinance and therefore would not be enough to require any measurable landfill capacity. Operation of the Project would not generate solid waste.

Therefore, implementation of the Project would not directly or cumulatively exceed capacity of the likely landfills serving the Project site. The Project would comply with RR UTL-1 and all applicable federal, State, and local statutes and regulations related to solid waste. Impacts related to landfill capacity and solid waste regulations would be less than significant, and no mitigation is required.

MITIGATION MEASURES

There would be no significant impacts related to utilities and service systems; therefore, no mitigation measures are required.

4.18 <u>MANDATORY FINDINGS OF SIGNIFICANCE</u>	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Does the project:				
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

MANDATORY FINDINGS OF SIGNIFICANCE ANALYSIS

- a) **Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?**

Less than Significant Impact with Mitigation. As discussed above in Section 4.4, Biological Resources, there are no sensitive biological resources on or near the Project site, including the new monitoring well locations. There is potential for nesting birds and raptors to be present on and near the Project site; therefore, mitigation has been provided to reduce potentially significant impacts to nesting migratory birds and raptors to less than significant levels (MM BIO-1). The Project would not degrade the quality of the environment; would not substantially reduce the habitat of fish or wildlife species; would not cause a fish or wildlife population to drop below self-sustaining levels; would not threaten to eliminate a plant or animal community; and would not reduce the number of or restrict the range of a Rare or Endangered plant or animal.

As discussed in Section 4.5, Cultural Resources, there would be no impacts to built environment resources, as there are no structures on the Project site. As discussed, there is a remote potential to encounter unknown buried historic, archaeological, tribal cultural, or paleontological resources and/or human remains from implementation of the Project. Adherence to RR CUL-1 would address encounter with human remains. Implementation of MM CUL-1 and MM CUL-2 in the unanticipated event that buried historic, archaeological, or tribal cultural resources (MM CUL-1) and/or paleontological resources (MM CUL-2) would reduce potential impacts to cultural resources to a less than significant level. Therefore, the Project does not have the potential to

eliminate important examples of the major periods of California history or prehistory with implementation of regulatory requirements and mitigation measures.

- b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?**

Less than Significant Impact. As shown in the analysis in Sections 4.1 through 4.17 above, all construction-related impacts (which are only identified for biological resources and noise) would be considered less than significant with implementation of feasible mitigation measures. As demonstrated by the analysis in this IS/MND, there would be no long-term operational impacts requiring mitigation.

There is one known project within the remainder of the former Cogen Landfill or elsewhere within the Eastern Avenue Hill Complex, and that is Crown’s plan to install an LFG emissions system. Pursuant to the LEA’s Amended Order, the other landfill property owners are also responsible for managing the LFG emissions from their properties; at the time of preparation of this IS/MND, Crown is the sole property owner for the remainder of the landfill with known plans to install an LFG-related system. Crown is the majority landowner of the former Cogen Landfill, and the western boundary of Crown’s property abuts the County’s 4.6-acre property immediately to the east of Sheriff Road. Crown has submitted the following documents to the LEA: (1) *Landfill Gas Assessment Report*, APN: 5225-031-019, Monterey Park, California (LFG Report; SCS 2016a) and (2) *Landfill Gas Assessment Workplan*, APN: 5225-031-019, Monterey Park, California (LFG Workplan; SCS 2016b). The Project engineer has reviewed Crown’s LFG Report and LFG Workplan to assess whether there would be any effects to the County’s LFG management plan with implementation of this LFG collection and treatment system. Based on the planned location and layout of Crown’s proposed system, the Project engineer concluded there would not affect the operation of the County’s system (Arora 2016). There would no cumulative impact, adverse or beneficial, with operation of both the County’s and Crown’s systems at the same time.

Regardless, because the Project would result in only construction-period impacts, a cumulatively considerable impact could only occur if construction of a development project in the Project vicinity was constructed at the same time as the Project, which is estimated to require approximately eight months, including one month for contingencies, plus a one-day installation period for each of the two new monitoring wells. At the time of preparation of this IS/MND, the timeline for constructing Crown’s system is not known; however, CEQA documentation has not been distributed and the documents submitted to the LEA post-date the County’s documents. This fact, combined with the lack of significant and unavoidable impacts associated with the Project after mitigation, show that the potential for cumulatively considerable impacts due to the Project is remote and not considered reasonably foreseeable.

- c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?**

No Impact. As shown in the analysis in Sections 4.1 through 4.17 above, the Project would not have environmental effects that could cause substantial adverse effects on human beings, either directly or indirectly. Implementation of the Project would beneficially affect air quality by reducing off-site migration of LFG from the County-owned portion of the former Cogen Landfill to regulatory acceptable levels.

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APPENDIX A
CALEEMOD DATA

**Cogen LFG Extraction Project
Los Angeles-South Coast County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.70	30,558.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	570	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 IF for 2014

Land Use - .7= total site acreage

Construction Phase - Monitoring WElls: 9/1/16-9/2/16

SP/Grading: 11/1/17-11/30/17

Demo: 12/1/17-12/14/17

Utilities: 12/15/17-2/10/18

LFG Construction: 2/11/18-6/30/18

Off-road Equipment - 1 frontloader and 1 backhoe

Off-road Equipment - 1 crane, 1 drilling rig, 1 backhoe

Off-road Equipment - 1 loader

Off-road Equipment - 1 front loader

Trips and VMT - Default assumptions. demo- 25 miles away

Demolition - Manual Calcs based off 500 SF building and 200 SF pavement

Grading - Assumptions based off Data needs

Vehicle Trips - Assumptions

Area Coating - No Painting

Energy Use - .

Construction Off-road Equipment Mitigation - .

Energy Mitigation -

Operational Off-Road Equipment - .

Off-road Equipment - Data Needs

Off-road Equipment - Data needs

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Interior	45837	0
tblConstructionPhase	NumDays	100.00	2.00
tblConstructionPhase	NumDays	1.00	26.00
tblConstructionPhase	NumDays	10.00	12.00
tblConstructionPhase	NumDays	100.00	120.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	10/3/2016	11/30/2017
tblConstructionPhase	PhaseStartDate	9/3/2016	11/1/2017
tblEnergyUse	T24E	0.00	3.44
tblGrading	AcresOfGrading	0.00	1.00
tblGrading	MaterialExported	0.00	4.00
tblLandUse	LandUseSquareFeet	0.00	30,558.00
tblLandUse	LotAcreage	0.00	0.70
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	570
tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblVehicleTrips	WD_TR	0.00	1.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	3.6000e-004	4.4800e-003	3.0000e-003	1.0000e-005	1.7000e-004	1.2000e-004	3.0000e-004	5.0000e-005	1.1000e-004	1.6000e-004			0.8562	1.9000e-004	0.0000	0.8603
2017	8.5500e-003	0.0795	0.0675	9.0000e-005	1.8500e-003	5.9100e-003	7.7600e-003	3.7000e-003	5.4400e-003	5.8100e-003			8.5198	2.3300e-003	0.0000	8.5687
2018	0.0553	0.6078	0.4214	9.9000e-004	0.0110	0.0286	0.0396	2.9500e-003	0.0263	0.0292			87.4010	0.0233	0.0000	87.8906
Total	0.0642	0.6918	0.4919	1.0900e-003	0.0130	0.0346	0.0476	3.3700e-003	0.0318	0.0352			96.7769	0.0258	0.0000	97.3195

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	3.6000e-004	4.4800e-003	3.0000e-003	1.0000e-005	1.7000e-004	1.2000e-004	3.0000e-004	5.0000e-005	1.1000e-004	1.6000e-004			0.8562	1.9000e-004	0.0000	0.8603
2017	8.5500e-003	0.0795	0.0675	9.0000e-005	1.4000e-003	5.9100e-003	7.3100e-003	3.2000e-004	5.4400e-003	5.7600e-003			8.5198	2.3300e-003	0.0000	8.5687
2018	0.0553	0.6078	0.4214	9.9000e-004	0.0110	0.0286	0.0396	2.9500e-003	0.0263	0.0292			87.4009	0.0233	0.0000	87.8905
Total	0.0642	0.6918	0.4919	1.0900e-003	0.0126	0.0346	0.0472	3.3200e-003	0.0318	0.0352			96.7768	0.0258	0.0000	97.3194

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	3.46	0.00	0.95	1.48	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1193	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000			2.0000e-005	0.0000	0.0000	3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			27.1784	1.3800e-003	2.9000e-004	27.2961
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	0.1193	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			27.1784	1.3800e-003	2.9000e-004	27.2962

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Area	0.1193	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.0000e-005	0.0000	0.0000	3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	19.0249	9.7000e-004	2.0000e-004	19.1073
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
Total	0.1193	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	19.0249	9.7000e-004	2.0000e-004	19.1073

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.00	29.71	31.03	30.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Monitoring Wells	Building Construction	9/1/2016	9/2/2016	6	2	
2	Site Preparation/Grading	Site Preparation	11/1/2017	11/30/2017	6	26	
3	Demolition	Demolition	12/1/2017	12/14/2017	6	12	
4	Utilities/Underground Infrastructure	Trenching	12/15/2017	2/10/2018	6	50	
5	LFG Installation/Construction	Building Construction	2/11/2018	6/30/2018	6	120	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73

Demolition	Rubber Tired Dozers	0	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation/Grading	Concrete/Industrial Saws	0	8.00	81	0.73
Site Preparation/Grading	Rubber Tired Dozers	0	1.00	255	0.40
Site Preparation/Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Monitoring Wells	Bore/Drill Rigs	1	6.00	205	0.50
LFG Installation/Construction	Bore/Drill Rigs	1	6.00	205	0.50
LFG Installation/Construction	Cranes	1	4.00	226	0.29
LFG Installation/Construction	Forklifts	0	6.00	89	0.20
LFG Installation/Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Utilities/Underground Infrastructure	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Monitoring Wells	Cranes	0	4.00	226	0.29
Monitoring Wells	Forklifts	0	6.00	89	0.20
Site Preparation/Grading	Graders	0	8.00	174	0.41
Monitoring Wells	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	2	5.00	0.00	3.00	14.70	6.90	25.00	LD_Mix	HDT_Mix	HHDT
Site Preparation/Grading	1	3.00	0.00	1.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Monitoring Wells	1	13.00	5.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
LFG Installation/Construction	3	13.00	5.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Utilities/Underground Infrastructure	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Monitoring Wells - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.6000e-004	3.9300e-003	1.5400e-003	1.0000e-005		1.2000e-004	1.2000e-004		1.1000e-004	1.1000e-004			0.6176	1.9000e-004	0.0000	0.6215
Total	2.6000e-004	3.9300e-003	1.5400e-003	1.0000e-005		1.2000e-004	1.2000e-004		1.1000e-004	1.1000e-004			0.6176	1.9000e-004	0.0000	0.6215

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-005	4.6000e-004	5.9000e-004	0.0000	3.0000e-005	1.0000e-005	4.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005			0.0995	0.0000	0.0000	0.0996
Worker	6.0000e-005	8.0000e-005	8.6000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005			0.1390	1.0000e-005	0.0000	0.1392
Total	1.0000e-004	5.4000e-004	1.4500e-003	0.0000	1.7000e-004	1.0000e-005	1.8000e-004	5.0000e-005	1.0000e-005	6.0000e-005			0.2386	1.0000e-005	0.0000	0.2387

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.6000e-004	3.9300e-003	1.5400e-003	1.0000e-005		1.2000e-004	1.2000e-004		1.1000e-004	1.1000e-004			0.6176	1.9000e-004	0.0000	0.6215
Total	2.6000e-004	3.9300e-003	1.5400e-003	1.0000e-005		1.2000e-004	1.2000e-004		1.1000e-004	1.1000e-004			0.6176	1.9000e-004	0.0000	0.6215

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-005	4.6000e-004	5.9000e-004	0.0000	3.0000e-005	1.0000e-005	4.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005			0.0995	0.0000	0.0000	0.0996
Worker	6.0000e-005	8.0000e-005	8.6000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005			0.1390	1.0000e-005	0.0000	0.1392
Total	1.0000e-004	5.4000e-004	1.4500e-003	0.0000	1.7000e-004	1.0000e-005	1.8000e-004	5.0000e-005	1.0000e-005	6.0000e-005			0.2386	1.0000e-005	0.0000	0.2387

3.3 Site Preparation/Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3000e-004	0.0000	5.3000e-004	6.0000e-005	0.0000	6.0000e-005			0.0000	0.0000	0.0000	0.0000
Off-Road	3.0900e-003	0.0297	0.0233	3.0000e-005		2.2300e-003	2.2300e-003		2.0500e-003	2.0500e-003			2.8151	8.6000e-004	0.0000	2.8332
Total	3.0900e-003	0.0297	0.0233	3.0000e-005	5.3000e-004	2.2300e-003	2.7600e-003	6.0000e-005	2.0500e-003	2.1100e-003			2.8151	8.6000e-004	0.0000	2.8332

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	1.4000e-004	1.1000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000			0.0336	0.0000	0.0000	0.0336
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	2.3000e-004	2.3400e-003	1.0000e-005	4.3000e-004	0.0000	4.3000e-004	1.1000e-004	0.0000	1.2000e-004			0.4014	2.0000e-005	0.0000	0.4019
Total	1.6000e-004	3.7000e-004	2.4500e-003	1.0000e-005	4.4000e-004	0.0000	4.4000e-004	1.1000e-004	0.0000	1.2000e-004			0.4349	2.0000e-005	0.0000	0.4354

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.4000e-004	0.0000	2.4000e-004	3.0000e-005	0.0000	3.0000e-005			0.0000	0.0000	0.0000	0.0000
Off-Road	3.0900e-003	0.0297	0.0233	3.0000e-005		2.2300e-003	2.2300e-003		2.0500e-003	2.0500e-003			2.8151	8.6000e-004	0.0000	2.8332
Total	3.0900e-003	0.0297	0.0233	3.0000e-005	2.4000e-004	2.2300e-003	2.4700e-003	3.0000e-005	2.0500e-003	2.0800e-003			2.8151	8.6000e-004	0.0000	2.8332

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	1.4000e-004	1.1000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000			0.0336	0.0000	0.0000	0.0336
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	2.3000e-004	2.3400e-003	1.0000e-005	4.3000e-004	0.0000	4.3000e-004	1.1000e-004	0.0000	1.2000e-004			0.4014	2.0000e-005	0.0000	0.4019
Total	1.6000e-004	3.7000e-004	2.4500e-003	1.0000e-005	4.4000e-004	0.0000	4.4000e-004	1.1000e-004	0.0000	1.2000e-004			0.4349	2.0000e-005	0.0000	0.4354

3.4 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.9000e-004	0.0000	2.9000e-004	4.0000e-005	0.0000	4.0000e-005			0.0000	0.0000	0.0000	0.0000
Off-Road	2.8500e-003	0.0274	0.0215	3.0000e-005		2.0600e-003	2.0600e-003		1.9000e-003	1.9000e-003			2.5985	8.0000e-004	0.0000	2.6153
Total	2.8500e-003	0.0274	0.0215	3.0000e-005	2.9000e-004	2.0600e-003	2.3500e-003	4.0000e-005	1.9000e-003	1.9400e-003			2.5985	8.0000e-004	0.0000	2.6153

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	5.0000e-004	3.5000e-004	0.0000	3.0000e-005	1.0000e-005	4.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005			0.1252	0.0000	0.0000	0.1253
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	1.7000e-004	1.8000e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005			0.3088	2.0000e-005	0.0000	0.3091
Total	1.5000e-004	6.7000e-004	2.1500e-003	0.0000	3.6000e-004	1.0000e-005	3.7000e-004	1.0000e-004	1.0000e-005	1.1000e-004			0.4340	2.0000e-005	0.0000	0.4344

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.3000e-004	0.0000	1.3000e-004	2.0000e-005	0.0000	2.0000e-005			0.0000	0.0000	0.0000	0.0000
Off-Road	2.8500e-003	0.0274	0.0215	3.0000e-005		2.0600e-003	2.0600e-003		1.9000e-003	1.9000e-003			2.5985	8.0000e-004	0.0000	2.6152
Total	2.8500e-003	0.0274	0.0215	3.0000e-005	1.3000e-004	2.0600e-003	2.1900e-003	2.0000e-005	1.9000e-003	1.9200e-003			2.5985	8.0000e-004	0.0000	2.6152

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	5.0000e-004	3.5000e-004	0.0000	3.0000e-005	1.0000e-005	4.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005			0.1252	0.0000	0.0000	0.1253

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	1.7000e-004	1.8000e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005			0.3088	2.0000e-005	0.0000	0.3091
Total	1.5000e-004	6.7000e-004	2.1500e-003	0.0000	3.6000e-004	1.0000e-005	3.7000e-004	1.0000e-004	1.0000e-005	1.1000e-004			0.4340	2.0000e-005	0.0000	0.4344

3.5 Utilities/Underground Infrastructure - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.2200e-003	0.0213	0.0168	2.0000e-005		1.6000e-003	1.6000e-003		1.4700e-003	1.4700e-003			2.0211	6.2000e-004	0.0000	2.0341
Total	2.2200e-003	0.0213	0.0168	2.0000e-005		1.6000e-003	1.6000e-003		1.4700e-003	1.4700e-003			2.0211	6.2000e-004	0.0000	2.0341

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	1.2000e-004	1.2600e-003	0.0000	2.3000e-004	0.0000	2.3000e-004	6.0000e-005	0.0000	6.0000e-005			0.2161	1.0000e-005	0.0000	0.2164
Total	8.0000e-005	1.2000e-004	1.2600e-003	0.0000	2.3000e-004	0.0000	2.3000e-004	6.0000e-005	0.0000	6.0000e-005			0.2161	1.0000e-005	0.0000	0.2164

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.2200e-003	0.0213	0.0168	2.0000e-005		1.6000e-003	1.6000e-003		1.4700e-003	1.4700e-003			2.0211	6.2000e-004	0.0000	2.0341
Total	2.2200e-003	0.0213	0.0168	2.0000e-005		1.6000e-003	1.6000e-003		1.4700e-003	1.4700e-003			2.0211	6.2000e-004	0.0000	2.0341

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	1.2000e-004	1.2600e-003	0.0000	2.3000e-004	0.0000	2.3000e-004	6.0000e-005	0.0000	6.0000e-005			0.2161	1.0000e-005	0.0000	0.2164
Total	8.0000e-005	1.2000e-004	1.2600e-003	0.0000	2.3000e-004	0.0000	2.3000e-004	6.0000e-005	0.0000	6.0000e-005			0.2161	1.0000e-005	0.0000	0.2164

3.5 Utilities/Underground Infrastructure - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.7900e-003	0.0473	0.0421	6.0000e-005		3.3500e-003	3.3500e-003		3.0900e-003	3.0900e-003			5.1074	1.5900e-003	0.0000	5.1408
Total	4.7900e-003	0.0473	0.0421	6.0000e-005		3.3500e-003	3.3500e-003		3.0900e-003	3.0900e-003			5.1074	1.5900e-003	0.0000	5.1408

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	2.8000e-004	2.9400e-003	1.0000e-005	5.9000e-004	1.0000e-005	6.0000e-004	1.6000e-004	0.0000	1.6000e-004			0.5354	3.0000e-005	0.0000	0.5360
Total	1.9000e-004	2.8000e-004	2.9400e-003	1.0000e-005	5.9000e-004	1.0000e-005	6.0000e-004	1.6000e-004	0.0000	1.6000e-004			0.5354	3.0000e-005	0.0000	0.5360

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.7900e-003	0.0473	0.0421	6.0000e-005		3.3500e-003	3.3500e-003		3.0900e-003	3.0900e-003			5.1074	1.5900e-003	0.0000	5.1408
Total	4.7900e-003	0.0473	0.0421	6.0000e-005		3.3500e-003	3.3500e-003		3.0900e-003	3.0900e-003			5.1074	1.5900e-003	0.0000	5.1408

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	2.8000e-004	2.9400e-003	1.0000e-005	5.9000e-004	1.0000e-005	6.0000e-004	1.6000e-004	0.0000	1.6000e-004			0.5354	3.0000e-005	0.0000	0.5360
Total	1.9000e-004	2.8000e-004	2.9400e-003	1.0000e-005	5.9000e-004	1.0000e-005	6.0000e-004	1.6000e-004	0.0000	1.6000e-004			0.5354	3.0000e-005	0.0000	0.5360

3.6 LFG Installation/Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0453	0.5331	0.3015	7.5000e-004		0.0248	0.0248		0.0228	0.0228			68.2446	0.0213	0.0000	68.6907
Total	0.0453	0.5331	0.3015	7.5000e-004		0.0248	0.0248		0.0228	0.0228			68.2446	0.0213	0.0000	68.6907

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	2.3100e-003	0.0230	0.0324	7.0000e-005	1.8400e-003	3.5000e-004	2.1900e-003	5.3000e-004	3.2000e-004	8.4000e-004			5.7800	4.0000e-005	0.0000	5.7809
Worker	2.7400e-003	4.0900e-003	0.0424	1.1000e-004	8.5500e-003	8.0000e-005	8.6200e-003	2.2700e-003	7.0000e-005	2.3400e-003			7.7336	4.1000e-004	0.0000	7.7422
Total	5.0500e-003	0.0271	0.0748	1.8000e-004	0.0104	4.3000e-004	0.0108	2.8000e-003	3.9000e-004	3.1800e-003			13.5136	4.5000e-004	0.0000	13.5230

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0453	0.5331	0.3015	7.5000e-004		0.0248	0.0248		0.0228	0.0228			68.2445	0.0213	0.0000	68.6906
Total	0.0453	0.5331	0.3015	7.5000e-004		0.0248	0.0248		0.0228	0.0228			68.2445	0.0213	0.0000	68.6906

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	2.3100e-003	0.0230	0.0324	7.0000e-005	1.8400e-003	3.5000e-004	2.1900e-003	5.3000e-004	3.2000e-004	8.4000e-004			5.7800	4.0000e-005	0.0000	5.7809
Worker	2.7400e-003	4.0900e-003	0.0424	1.1000e-004	8.5500e-003	8.0000e-005	8.6200e-003	2.2700e-003	7.0000e-005	2.3400e-003			7.7336	4.1000e-004	0.0000	7.7422
Total	5.0500e-003	0.0271	0.0748	1.8000e-004	0.0104	4.3000e-004	0.0108	2.8000e-003	3.9000e-004	3.1800e-003			13.5136	4.5000e-004	0.0000	13.5230

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.531767	0.058060	0.178534	0.124864	0.038964	0.006284	0.016861	0.033134	0.002486	0.003151	0.003685	0.000540	0.001671

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000			19.0249	9.7000e-004	2.0000e-004	19.1073
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000			27.1784	1.3800e-003	2.9000e-004	27.2961
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	105120	27.1784	1.3800e-003	2.9000e-004	27.2961
Total		27.1784	1.3800e-003	2.9000e-004	27.2961

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
--	-----------------	-----------	-----	-----	------

Land Use	kWh/yr	MT/yr			
User Defined Industrial	73583.7	19.0249	9.7000e-004	2.0000e-004	19.1073
Total		19.0249	9.7000e-004	2.0000e-004	19.1073

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1193	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000			2.0000e-005	0.0000	0.0000	3.0000e-005
Unmitigated	0.1193	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000			2.0000e-005	0.0000	0.0000	3.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	8.8500e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1104					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000			2.0000e-005	0.0000	0.0000	3.0000e-005
Total	0.1193	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000			2.0000e-005	0.0000	0.0000	3.0000e-005

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					

Consumer Products	0.1104					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000			2.0000e-005	0.0000	0.0000	3.0000e-005
Architectural Coating	8.8500e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	0.1193	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000			2.0000e-005	0.0000	0.0000	3.0000e-005

Cogen LFG Extraction Project Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.70	30,558.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	570	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 IF for 2014

Land Use - .7= total site acreage

Construction Phase - Monitoring WElls: 9/1/16-9/2/16

SP/Grading: 11/1/17-11/30/17

Demo: 12/1/17-12/14/17

Off-road Equipment - 1 frontloader and 1 backhoe

Off-road Equipment - 1 crane, 1 drilling rig, 1 backhoe

Off-road Equipment - 1 loader

Off-road Equipment - 1 front loader

Trips and VMT - Default assumptions. demo- 25 miles away

Demolition - Manual Calcs based off 500 SF building and 200 SF pavement

Grading - Assumptions based off Data needs

Vehicle Trips - Assumptions

Area Coating - No Painting

Energy Use - .

Construction Off-road Equipment Mitigation - .

Energy Mitigation -

Operational Off-Road Equipment - .

Off-road Equipment - Data Needs

Off-road Equipment - Data needs

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Interior	45837	0
tblConstructionPhase	NumDays	100.00	2.00
tblConstructionPhase	NumDays	1.00	26.00
tblConstructionPhase	NumDays	10.00	12.00
tblConstructionPhase	NumDays	100.00	120.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	10/3/2016	11/30/2017
tblConstructionPhase	PhaseStartDate	9/3/2016	11/1/2017
tblEnergyUse	T24E	0.00	3.44
tblGrading	AcresOfGrading	0.00	1.00
tblGrading	MaterialExported	0.00	4.00
tblLandUse	LandUseSquareFeet	0.00	30,558.00
tblLandUse	LotAcreage	0.00	0.70
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	570
tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblVehicleTrips	WD_TR	0.00	1.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	0.3678	4.4641	3.0019	9.4300e-003	0.1765	0.1238	0.3003	0.0474	0.1139	0.1613			940.8067	0.2149	0.0000	945.3193
2017	0.5011	4.6760	3.9453	5.5800e-003	0.1095	0.3451	0.4545	0.0236	0.3175	0.3411			556.2086	0.1495	0.0000	559.3488
2018	0.8431	9.3274	6.2813	0.0153	0.1765	0.4203	0.5968	0.0474	0.3867	0.4341			1,499.2802	0.3986	0.0000	1,507.6505
Total	1.7119	18.4676	13.2285	0.0303	0.4625	0.8891	1.3516	0.1184	0.8180	0.9364			2,996.2955	0.7630	0.0000	3,012.3186

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	0.3678	4.4641	3.0019	9.4300e-003	0.1765	0.1238	0.3003	0.0474	0.1139	0.1613			940.8067	0.2149	0.0000	945.3193

2017	0.5011	4.6760	3.9453	5.5800e-003	0.0830	0.3451	0.4281	0.0196	0.3175	0.3371			556.2086	0.1495	0.0000	559.3488
2018	0.8431	9.3274	6.2813	0.0153	0.1765	0.4203	0.5968	0.0474	0.3867	0.4341			1,499.2802	0.3986	0.0000	1,507.6505
Total	1.7119	18.4676	13.2285	0.0303	0.4360	0.8891	1.3251	0.1144	0.8180	0.9324			2,996.2955	0.7630	0.0000	3,012.3186

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	5.73	0.00	1.96	3.39	0.00	0.43	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.6536	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Total	0.6536	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			2.2000e-004	0.0000	0.0000	2.3000e-004

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.6536	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000

Total	0.6536	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.2000e-004	0.0000	0.0000	2.3000e-004
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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Monitoring Wells	Building Construction	9/1/2016	9/2/2016	6	2	
2	Site Preparation/Grading	Site Preparation	11/1/2017	11/30/2017	6	26	
3	Demolition	Demolition	12/1/2017	12/14/2017	6	12	
4	Utilities/Underground Infrastructure	Trenching	12/15/2017	2/10/2018	6	50	
5	LFG Installation/Construction	Building Construction	2/11/2018	6/30/2018	6	120	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Rubber Tired Dozers	0	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation/Grading	Concrete/Industrial Saws	0	8.00	81	0.73
Site Preparation/Grading	Rubber Tired Dozers	0	1.00	255	0.40
Site Preparation/Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Monitoring Wells	Bore/Drill Rigs	1	6.00	205	0.50

LFG Installation/Construction	Bore/Drill Rigs	1	6.00	205	0.50
LFG Installation/Construction	Cranes	1	4.00	226	0.29
LFG Installation/Construction	Forklifts	0	6.00	89	0.20
LFG Installation/Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Utilities/Underground Infrastructure	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Monitoring Wells	Cranes	0	4.00	226	0.29
Monitoring Wells	Forklifts	0	6.00	89	0.20
Site Preparation/Grading	Graders	0	8.00	174	0.41
Monitoring Wells	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	2	5.00	0.00	3.00	14.70	6.90	25.00	LD_Mix	HDT_Mix	HHDT
Site Preparation/Grading	1	3.00	0.00	1.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Monitoring Wells	1	13.00	5.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
LFG Installation/Construction	3	13.00	5.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Utilities/Underground Infrastructure	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area
Clean Paved Roads

3.2 Monitoring Wells - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2611	3.9348	1.5362	6.5600e-003		0.1155	0.1155		0.1063	0.1063			680.8066	0.2054		685.1191
Total	0.2611	3.9348	1.5362	6.5600e-003		0.1155	0.1155		0.1063	0.1063			680.8066	0.2054		685.1191

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0465	0.4485	0.6189	1.0900e-003	0.0312	6.9100e-003	0.0381	8.8700e-003	6.3600e-003	0.0152			109.1961	8.3000e-004		109.2135
Worker	0.0602	0.0808	0.8468	1.7800e-003	0.1453	1.3700e-003	0.1467	0.0385	1.2600e-003	0.0398			150.8040	8.7000e-003		150.9867
Total	0.1067	0.5293	1.4657	2.8700e-003	0.1765	8.2800e-003	0.1848	0.0474	7.6200e-003	0.0550			260.0001	9.5300e-003		260.2002

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2611	3.9348	1.5362	6.5600e-003		0.1155	0.1155		0.1063	0.1063			680.8066	0.2054		685.1191
Total	0.2611	3.9348	1.5362	6.5600e-003		0.1155	0.1155		0.1063	0.1063			680.8066	0.2054		685.1191

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0465	0.4485	0.6189	1.0900e-003	0.0312	6.9100e-003	0.0381	8.8700e-003	6.3600e-003	0.0152			109.1961	8.3000e-004		109.2135
Worker	0.0602	0.0808	0.8468	1.7800e-003	0.1453	1.3700e-003	0.1467	0.0385	1.2600e-003	0.0398			150.8040	8.7000e-003		150.9867

Total	0.1067	0.5293	1.4657	2.8700e-003	0.1765	8.2800e-003	0.1848	0.0474	7.6200e-003	0.0550			260.0001	9.5300e-003		260.2002
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3.3 Site Preparation/Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					0.0408	0.0000	0.0408	4.4100e-003	0.0000	4.4100e-003			0.0000				0.0000
Off-Road	0.2376	2.2829	1.7954	2.3300e-003		0.1717	0.1717		0.1580	0.1580			238.6987	0.0731			240.2346
Total	0.2376	2.2829	1.7954	2.3300e-003	0.0408	0.1717	0.2125	4.4100e-003	0.1580	0.1624			238.6987	0.0731			240.2346

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.8000e-004	0.0103	8.5600e-003	3.0000e-005	6.7000e-004	1.5000e-004	8.2000e-004	1.8000e-004	1.3000e-004	3.2000e-004			2.8412	2.0000e-005		2.8417
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0125	0.0169	0.1763	4.1000e-004	0.0335	3.0000e-004	0.0338	8.8900e-003	2.8000e-004	9.1700e-003			33.4961	1.8600e-003		33.5350
Total	0.0131	0.0271	0.1849	4.4000e-004	0.0342	4.5000e-004	0.0347	9.0700e-003	4.1000e-004	9.4900e-003			36.3373	1.8800e-003		36.3767

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0184	0.0000	0.0184	1.9800e-003	0.0000	1.9800e-003			0.0000			0.0000

Off-Road	0.2376	2.2829	1.7954	2.3300e-003		0.1717	0.1717		0.1580	0.1580			238.6987	0.0731		240.2346
Total	0.2376	2.2829	1.7954	2.3300e-003	0.0184	0.1717	0.1901	1.9800e-003	0.1580	0.1599			238.6987	0.0731		240.2346

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.8000e-004	0.0103	8.5600e-003	3.0000e-005	6.7000e-004	1.5000e-004	8.2000e-004	1.8000e-004	1.3000e-004	3.2000e-004			2.8412	2.0000e-005		2.8417
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0125	0.0169	0.1763	4.1000e-004	0.0335	3.0000e-004	0.0338	8.8900e-003	2.8000e-004	9.1700e-003			33.4961	1.8600e-003		33.5350
Total	0.0131	0.0271	0.1849	4.4000e-004	0.0342	4.5000e-004	0.0347	9.0700e-003	4.1000e-004	9.4900e-003			36.3373	1.8800e-003		36.3767

3.4 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0482	0.0000	0.0482	7.2900e-003	0.0000	7.2900e-003			0.0000			0.0000
Off-Road	0.4752	4.5658	3.5908	4.6700e-003		0.3434	0.3434		0.3159	0.3159			477.3974	0.1463		480.4692
Total	0.4752	4.5658	3.5908	4.6700e-003	0.0482	0.3434	0.3915	7.2900e-003	0.3159	0.3232			477.3974	0.1463		480.4692

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	5.0900e-003	0.0821	0.0607	2.3000e-004	5.4400e-003	1.1800e-003	6.6300e-003	1.4900e-003	1.0900e-003	2.5800e-003			22.9844	1.7000e-004		22.9879
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0208	0.0281	0.2939	6.9000e-004	0.0559	5.1000e-004	0.0564	0.0148	4.7000e-004	0.0153			55.8268	3.0900e-003		55.8917
Total	0.0259	0.1102	0.3545	9.2000e-004	0.0613	1.6900e-003	0.0630	0.0163	1.5600e-003	0.0179			78.8112	3.2600e-003		78.8796

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0217	0.0000	0.0217	3.2800e-003	0.0000	3.2800e-003			0.0000			0.0000
Off-Road	0.4752	4.5658	3.5908	4.6700e-003		0.3434	0.3434		0.3159	0.3159			477.3974	0.1463		480.4692
Total	0.4752	4.5658	3.5908	4.6700e-003	0.0217	0.3434	0.3650	3.2800e-003	0.3159	0.3192			477.3974	0.1463		480.4692

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.0900e-003	0.0821	0.0607	2.3000e-004	5.4400e-003	1.1800e-003	6.6300e-003	1.4900e-003	1.0900e-003	2.5800e-003			22.9844	1.7000e-004		22.9879
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0208	0.0281	0.2939	6.9000e-004	0.0559	5.1000e-004	0.0564	0.0148	4.7000e-004	0.0153			55.8268	3.0900e-003		55.8917
Total	0.0259	0.1102	0.3545	9.2000e-004	0.0613	1.6900e-003	0.0630	0.0163	1.5600e-003	0.0179			78.8112	3.2600e-003		78.8796

3.5 Utilities/Underground Infrastructure - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3168	3.0439	2.3938	3.1100e-003		0.2289	0.2289		0.2106	0.2106			318.2649	0.0975		320.3128
Total	0.3168	3.0439	2.3938	3.1100e-003		0.2289	0.2289		0.2106	0.2106			318.2649	0.0975		320.3128

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0125	0.0169	0.1763	4.1000e-004	0.0335	3.0000e-004	0.0338	8.8900e-003	2.8000e-004	9.1700e-003			33.4961	1.8600e-003		33.5350
Total	0.0125	0.0169	0.1763	4.1000e-004	0.0335	3.0000e-004	0.0338	8.8900e-003	2.8000e-004	9.1700e-003			33.4961	1.8600e-003		33.5350

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3168	3.0439	2.3938	3.1100e-003		0.2289	0.2289		0.2106	0.2106			318.2649	0.0975		320.3128
Total	0.3168	3.0439	2.3938	3.1100e-003		0.2289	0.2289		0.2106	0.2106			318.2649	0.0975		320.3128

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0125	0.0169	0.1763	4.1000e-004	0.0335	3.0000e-004	0.0338	8.8900e-003	2.8000e-004	9.1700e-003			33.4961	1.8600e-003		33.5350
Total	0.0125	0.0169	0.1763	4.1000e-004	0.0335	3.0000e-004	0.0338	8.8900e-003	2.8000e-004	9.1700e-003			33.4961	1.8600e-003		33.5350

3.5 Utilities/Underground Infrastructure - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714			312.7760	0.0974		314.8208
Total	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714			312.7760	0.0974		314.8208

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0112	0.0153	0.1595	4.1000e-004	0.0335	2.9000e-004	0.0338	8.8900e-003	2.7000e-004	9.1700e-003			32.2678	1.7200e-003		32.3039
Total	0.0112	0.0153	0.1595	4.1000e-004	0.0335	2.9000e-004	0.0338	8.8900e-003	2.7000e-004	9.1700e-003			32.2678	1.7200e-003		32.3039

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714			312.7760	0.0974		314.8208
Total	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714			312.7760	0.0974		314.8208

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0112	0.0153	0.1595	4.1000e-004	0.0335	2.9000e-004	0.0338	8.8900e-003	2.7000e-004	9.1700e-003			32.2678	1.7200e-003		32.3039
Total	0.0112	0.0153	0.1595	4.1000e-004	0.0335	2.9000e-004	0.0338	8.8900e-003	2.7000e-004	9.1700e-003			32.2678	1.7200e-003		32.3039

3.6 LFG Installation/Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7548	8.8855	5.0256	0.0125		0.4132	0.4132		0.3802	0.3802			1,253.7793	0.3903		1,261.9760
Total	0.7548	8.8855	5.0256	0.0125		0.4132	0.4132		0.3802	0.3802			1,253.7793	0.3903		1,261.9760

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0397	0.3756	0.5645	1.0900e-003	0.0312	5.8000e-003	0.0370	8.8800e-003	5.3300e-003	0.0142			105.6739	8.0000e-004		105.6908	
Worker	0.0485	0.0663	0.6913	1.7800e-003	0.1453	1.2700e-003	0.1466	0.0385	1.1800e-003	0.0397			139.8269	7.4700e-003		139.9837	
Total	0.0882	0.4419	1.2558	2.8700e-003	0.1765	7.0700e-003	0.1836	0.0474	6.5100e-003	0.0539			245.5009	8.2700e-003		245.6745	

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7548	8.8855	5.0256	0.0125		0.4132	0.4132		0.3802	0.3802			1,253.7793	0.3903		1,261.9760
Total	0.7548	8.8855	5.0256	0.0125		0.4132	0.4132		0.3802	0.3802			1,253.7793	0.3903		1,261.9760

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0397	0.3756	0.5645	1.0900e-003	0.0312	5.8000e-003	0.0370	8.8800e-003	5.3300e-003	0.0142			105.6739	8.0000e-004		105.6908
Worker	0.0485	0.0663	0.6913	1.7800e-003	0.1453	1.2700e-003	0.1466	0.0385	1.1800e-003	0.0397			139.8269	7.4700e-003		139.9837
Total	0.0882	0.4419	1.2558	2.8700e-003	0.1765	7.0700e-003	0.1836	0.0474	6.5100e-003	0.0539			245.5009	8.2700e-003		245.6745

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.531767	0.058060	0.178534	0.124864	0.038964	0.006284	0.016861	0.033134	0.002486	0.003151	0.003685	0.000540	0.001671

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Mitigated	0.6536	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.2000e-004	0.0000	2.3000e-004
Unmitigated	0.6536	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.2000e-004	0.0000	2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Consumer Products	0.6051					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			2.2000e-004	0.0000		2.3000e-004
Architectural Coating	0.0485					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6536	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			2.2000e-004	0.0000		2.3000e-004

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Consumer Products	0.6051					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			2.2000e-004	0.0000		2.3000e-004
Architectural Coating	0.0485					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6536	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			2.2000e-004	0.0000		2.3000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

APPENDIX B
NOISE MONITORING DATA

Summary			
File Name	831_Data.099		
Serial Number	0001742		
Model	Model 831		
Firmware Version	2.300		
User	Gershon		
Location	Site #1		
Job Description	Cogen MND		
Note			
Measurement Description			
Start	2016-04-13 10:00:13		
Stop	2016-04-13 10:30:23		
Duration	0:30:10.0		
Run Time	0:30:10.0		
Pause	0:00:00.0		
Pre Calibration	2016-02-22 10:31:34		
Post Calibration	None		
Calibration Deviation	---		
Overall Settings			
RMS Weight	A Weighting		
Peak Weight	A Weighting		
Detector	Slow		
Preamp	PRM831		
Microphone Correction	Off		
Integration Method	Linear		
Gain	0.0 dB		
Overload	144.6 dB		
	A	C	Z
Results			
LAeq	51.2 dB		
LAE	83.8 dB		
EA	26.367 $\mu\text{Pa}^2\text{h}$		
LApeak (max)	2016-04-13 10:02:18	87.3 dB	
LASmax	2016-04-13 10:02:14	69.9 dB	
LASmin	2016-04-13 10:09:02	43.7 dB	
Community Noise			
	Ldn	LDay 07:00-22:00	:00
	51.2	51.2	##
LCeq	62.0 dB		
LAeq	51.2 dB		
LCeq - LAeq	10.8 dB		
LAlaq	57.8 dB		
LAeq	51.2 dB		
LAlaq - LAeq	6.7 dB		
# Overloads	0		
Overload Duration	0.0 s		
Statistics			
LAS5.00	54.6 dB		
LAS10.00	52.1 dB		
LAS33.30	48.3 dB		
LAS50.00	47.1 dB		
LAS66.60	46.3 dB		
LAS90.00	45.3 dB		
Calibration History			
Preamp	Date	dB re. 1V/Pa	
PRM831	2016-02-22 10:31:34	-27.1	

Record #	Date	Time	Run Duration	LAeq	LASmin	LASmin Time	LASmax	LASmax Time
1	2016-04-13	10:00:13	0:00:46.8	48.2	46.1	10:00:35	53.7	10:00:21
2	2016-04-13	10:01:00	0:01:00.0	54.2	46.8	10:01:36	66.5	10:01:58
3	2016-04-13	10:02:00	0:01:00.0	60.8	45.3	10:02:58	69.9	10:02:14
4	2016-04-13	10:03:00	0:01:00.0	50.0	45.2	10:03:00	54.3	10:03:47
5	2016-04-13	10:04:00	0:01:00.0	47.3	45.5	10:04:38	51.3	10:04:08
6	2016-04-13	10:05:00	0:01:00.0	48.6	45.4	10:05:59	53.8	10:05:34
7	2016-04-13	10:06:00	0:01:00.0	46.1	44.6	10:06:13	48.3	10:06:19
8	2016-04-13	10:07:00	0:01:00.0	53.8	46.1	10:07:42	62.6	10:07:49
9	2016-04-13	10:08:00	0:01:00.0	55.8	44.0	10:08:59	66.0	10:08:24
10	2016-04-13	10:09:00	0:01:00.0	44.7	43.7	10:09:02	47.5	10:09:54
11	2016-04-13	10:10:00	0:01:00.0	47.3	44.5	10:10:45	52.2	10:10:11
12	2016-04-13	10:11:00	0:01:00.0	46.2	44.6	10:11:11	48.5	10:11:48
13	2016-04-13	10:12:00	0:01:00.0	50.7	45.6	10:12:21	62.2	10:12:33
14	2016-04-13	10:13:00	0:01:00.0	52.4	47.3	10:13:04	58.9	10:13:52
15	2016-04-13	10:14:00	0:01:00.0	50.3	47.1	10:14:49	54.0	10:14:20
16	2016-04-13	10:15:00	0:01:00.0	47.2	46.1	10:15:04	49.0	10:15:59
17	2016-04-13	10:16:00	0:01:00.0	49.1	46.0	10:16:23	52.0	10:16:56
18	2016-04-13	10:17:00	0:01:00.0	53.2	47.7	10:17:41	67.1	10:17:20
19	2016-04-13	10:18:00	0:01:00.0	49.7	45.5	10:18:54	53.9	10:18:17
20	2016-04-13	10:19:00	0:01:00.0	48.8	45.4	10:19:21	53.2	10:19:43
21	2016-04-13	10:20:00	0:01:00.0	47.0	45.8	10:20:48	50.3	10:20:10
22	2016-04-13	10:21:00	0:01:00.0	47.7	46.0	10:21:32	54.0	10:21:09
23	2016-04-13	10:22:00	0:01:00.0	46.7	45.5	10:22:57	48.4	10:22:37
24	2016-04-13	10:23:00	0:01:00.0	46.0	44.5	10:23:16	47.9	10:23:42
25	2016-04-13	10:24:00	0:01:00.0	46.1	45.1	10:24:14	47.0	10:24:28
26	2016-04-13	10:25:00	0:01:00.0	46.7	45.2	10:25:07	49.4	10:25:55
27	2016-04-13	10:26:00	0:01:00.0	47.4	44.8	10:26:19	51.0	10:26:04
28	2016-04-13	10:27:00	0:01:00.0	45.9	44.5	10:27:59	48.0	10:27:38
29	2016-04-13	10:28:00	0:01:00.0	45.4	44.3	10:28:07	47.5	10:28:54
30	2016-04-13	10:29:00	0:01:00.0	46.3	44.8	10:29:35	48.1	10:29:43
31	2016-04-13	10:30:00	0:00:23.2	51.0	44.8	10:30:15	56.3	10:30:23

Summary			
File Name	831_Data.100		
Serial Number	0001742		
Model	Model 831		
Firmware Version	2.300		
User	Gershon		
Location	Site #2		
Job Description	Cogen MND		
Note			
Measurement Description			
Start	2016-04-13 10:40:37		
Stop	2016-04-13 11:10:38		
Duration	0:30:01.0		
Run Time	0:30:01.0		
Pause	0:00:00.0		
Pre Calibration	2016-02-22 10:31:34		
Post Calibration	None		
Calibration Deviation	---		
Overall Settings			
RMS Weight	A Weighting		
Peak Weight	A Weighting		
Detector	Slow		
Preamp	PRM831		
Microphone Correction	Off		
Integration Method	Linear		
Gain	0.0 dB		
Overload	144.6 dB		
	A	C	Z
Results			
LAeq	51.7 dB		
LAE	84.3 dB		
EA	29.846 $\mu\text{Pa}^2\text{h}$		
LApeak (max)	2016-04-13 10:55:39	93.4 dB	
LASmax	2016-04-13 10:55:39	72.3 dB	
LASmin	2016-04-13 10:47:14	45.0 dB	
Community Noise			
	Ldn	LDay 07:00-22:00	7:00
	51.7	51.7	##
LCeq	62.7 dB		
LAeq	51.7 dB		
LCeq - LAeq	11.0 dB		
LAleq	59.0 dB		
LAeq	51.7 dB		
LAleq - LAeq	7.2 dB		
# Overloads	0		
Overload Duration	0.0 s		
Statistics			
LAS5.00	55.2 dB		
LAS10.00	53.5 dB		
LAS33.30	50.3 dB		
LAS50.00	49.3 dB		
LAS66.60	48.4 dB		
LAS90.00	47.1 dB		
Calibration History			
Preamp	Date	dB re. 1V/Pa	
PRM831	2016-02-22 10:31:34	-27.1	

Record #	Date	Time	Run Duration	LAeq	LASmin	LASmin Time	LASmax	LASmax Time
1	2016-04-13	10:40:37	0:00:22.7	57.8	49.6	10:40:52	64.7	10:40:54
2	2016-04-13	10:41:00	0:01:00.0	49.3	45.6	10:41:35	56.9	10:41:00
3	2016-04-13	10:42:00	0:01:00.0	50.2	47.3	10:42:43	56.8	10:42:02
4	2016-04-13	10:43:00	0:01:00.0	49.5	47.7	10:43:02	52.0	10:43:37
5	2016-04-13	10:44:00	0:01:00.0	50.8	47.9	10:44:32	56.1	10:44:54
6	2016-04-13	10:45:00	0:01:00.0	50.7	47.1	10:45:16	56.9	10:45:04
7	2016-04-13	10:46:00	0:01:00.0	49.8	46.3	10:46:20	56.5	10:46:12
8	2016-04-13	10:47:00	0:01:00.0	47.1	45.0	10:47:14	50.4	10:47:51
9	2016-04-13	10:48:00	0:01:00.0	50.0	47.4	10:48:23	56.2	10:48:59
10	2016-04-13	10:49:00	0:01:00.0	54.7	50.3	10:49:51	60.8	10:49:23
11	2016-04-13	10:50:00	0:01:00.0	53.0	48.0	10:50:57	57.3	10:50:14
12	2016-04-13	10:51:00	0:01:00.0	51.8	46.5	10:51:10	55.7	10:51:16
13	2016-04-13	10:52:00	0:01:00.0	48.2	45.5	10:52:59	52.6	10:52:14
14	2016-04-13	10:53:00	0:01:00.0	49.2	45.6	10:53:00	53.7	10:53:32
15	2016-04-13	10:54:00	0:01:00.0	50.5	46.7	10:54:50	59.4	10:54:26
16	2016-04-13	10:55:00	0:01:00.0	60.6	46.8	10:55:06	72.3	10:55:39
17	2016-04-13	10:56:00	0:01:00.0	49.1	45.4	10:56:52	53.6	10:56:22
18	2016-04-13	10:57:00	0:01:00.0	48.2	46.1	10:57:45	53.5	10:57:29
19	2016-04-13	10:58:00	0:01:00.0	49.2	46.9	10:58:59	54.3	10:58:34
20	2016-04-13	10:59:00	0:01:00.0	48.5	46.5	10:59:03	53.4	10:59:05
21	2016-04-13	11:00:00	0:01:00.0	47.3	45.9	11:00:59	49.6	11:00:31
22	2016-04-13	11:01:00	0:01:00.0	49.8	45.9	11:01:00	52.2	11:01:29
23	2016-04-13	11:02:00	0:01:00.0	53.4	48.2	11:02:06	56.7	11:02:44
24	2016-04-13	11:03:00	0:01:00.0	52.0	47.5	11:03:59	56.3	11:03:51
25	2016-04-13	11:04:00	0:01:00.0	49.3	46.3	11:04:23	56.7	11:04:16
26	2016-04-13	11:05:00	0:01:00.0	47.7	46.2	11:05:36	49.1	11:05:59
27	2016-04-13	11:06:00	0:01:00.0	50.3	48.3	11:06:42	54.3	11:06:47
28	2016-04-13	11:07:00	0:01:00.0	50.2	47.1	11:07:30	55.2	11:07:00
29	2016-04-13	11:08:00	0:01:00.0	49.9	47.6	11:08:29	56.2	11:08:29
30	2016-04-13	11:09:00	0:01:00.0	49.7	47.4	11:09:28	53.2	11:09:53
31	2016-04-13	11:10:00	0:00:38.3	50.1	47.0	11:10:38	54.3	11:10:05