BAY AREA AIR QUALITY MANAGEMENT DISTRICT

CEQA INITIAL STUDY

LANDFILL GAS TO ENERGY PLANT AT TRI-CITIES RECYLCING AND DISPOSAL FACILITY
(PERMIT APPLICATIONS #21444 and #21445)
May 2012

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Introduction

This California Environmental Quality Act (CEQA) Initial Study (IS) document was prepared by SCS Engineers (SCS) on behalf of the Bay Area Air Quality Management District (BAAQMD or District) for the Tri-Cities Recycling and Disposal Facility (TCRDF) located at 7010 Auto Mall Parkway in Fremont, California. The IS was prepared by the BAAQMD to evaluate the potential impacts of a proposed landfill gas (LFG) to Energy project as required by CEQA.

The proposed Project would be located on the TCRDF site within the City of Fremont (Fremont or City). A Site Vicinity Map, **Figure 1**, is attached. The Project was previously evaluated by the City of Fremont Community Development Department (Fremont CDD or Fremont) for consistency with the existing TCRDF Conditional Use Permit (CUP). Fremont CDD concluded that the Project was consistent with the CUP. Subsequently, the BAAQMD determined that additional CEQA analysis would be required to assess potential impacts associated with the proposed LFG to Energy Plant. The BAAQMD is the CEQA Lead Agency for this Project.

Public Review

The IS and proposed Mitigated Negative Declaration will be circulated for a 30-day public review period beginning ##### and ending at #####. Written comments may be submitted to the following address:

Tamiko Endow, Air Quality Engineer
Bay Area Air Quality Management District (BAAQMD)
939 Ellis Street
San Francisco, CA 94109
Telephone: 415-749-4939
Fax: 415-749-4949
TEndow@baaqmd.gov

Approval of the Mitigated Negative Declaration does not constitute approval of the Project. Approval of the Project is a separate action by the BAAQMD and can take place only after the Mitigated Negative Declaration is adopted.

Background

The Project sponsor, Waste Management of Alameda County Inc. (WMAC), submitted an application for an Authority to Construct (AC) for the Project to the BAAQMD on December 23, 2009. The application will be evaluated by the BAAQMD upon completion of this CEQA process.

On October 11, 2010, Fremont approved a resolution finding that use of engines for destruction of LFG to produce renewable energy was consistent with the existing CUP PLN2000-00085. A copy of the City's letter is provided as **Appendix A**. A copy of the current CUP for the TCRDF is provided as **Appendix B**. Fremont found that no amendment to the CUP was required and that renewable energy power generation was an alternate destruction method for LFG and thus, an ancillary use operation.

Based on the finding by Fremont and information included on this IS Checklist, this IS concludes that all non-air quality related impacts of the Project would be less than significant; however, potential air quality impacts must be further evaluated because LFG-to-Energy engine emissions differ from flare emissions and can potentially have significant air quality impacts that would not be presented by a flare.

The BAAQMD has determined that a cumulative toxics risk assessment as well as modeling of carbon monoxide and fine particulates is required for this IS. Based on the relatively great distances from the Project to the nearest receptors, the District has determined that screening level risk assessment and modeling will be satisfactory for this IS, and that neither an on-site nor off-site cumulative emissions study would be required to be included. Impacts would further be limited or reduced by the fact that emissions associated with operation of the Project engines will directly result in reduced emissions from the landfill's flare. More detail about these topics is provided herein. **Figure 2**, attached, shows the locations and distances from the Project to nearby sensitive receptors.

Project Summary

The following information has been organized to correspond with the sections of the "Initial Study Environmental Checklist Form" (from Appendix G of the CEQA guidance created by the California Natural Resources Agency) and the BAAQMD's "Environmental Information Form" (Form H) for permit applications. A completed Form H is provided as **Appendix C**. The following information addresses the questions in the Initial Study Checklist that are relevant to the proposed LGFGTE project and the TCRDF property.

1. **Project title:**
   LFG to Energy Plant

2. **Lead agency name and address:**
   Bay Area Air Quality Management District
   939 Ellis Street
   San Francisco, California 94109

3. **Contact person and phone number:**
   Tamiko Endow, Air Quality Engineer
   Bay Area Air Quality Management District (BAAQMD)
   939 Ellis Street
   San Francisco, CA 94109
   Telephone: 415-749-4939
   Fax: 415-749-4949

TEndow@baaqmd.gov

4. Project location:

Tri-Cities Recycling and Disposal Facility
7010 Auto Mall Parkway
Fremont, California

5. Project sponsor's name and address:

Waste Management of Alameda County, Inc.
179 98th Ave.
Oakland, California 94603

6. General plan designation:

Baylands South Planning Area
TCRDF site (excluding Project area) – A(F): Agricultural with Flood overlay
Project Area – P: Planned District (Light Industrial)

7. Zoning:

Project Area – P-2005-262: Precise Planned District Area
Other TCRDF Areas – Landfill (approved Conditional Use), Surface Water Control Area, Wetland

8. Description of Project:

TCRDF is located at 7010 Auto Mall Parkway in Fremont, California. The site is owned and operated by WMAC, and operates under a Major Facility Review (MRF) permit from the BAAQMD (Facility No. 2246). TCRDF proposes to construct a LFG to Energy facility, which will be owned and operated by WMAC, in conjunction with Waste Management Renewable Energy, LLC (WMRE).

The Project consists of the addition of three LFG-fueled internal combustion (IC) engines at the TCRDF. These three IC engines would be fueled by LFG coming from the TCRDF landfill to generate up to 4.8 megawatts (MW) of renewable electricity, which will be delivered to the electric utility grid for distribution. The interconnection with the "grid" at distribution-level is the most efficient use of electricity because electricity loss is minimized over the reduced transport distance, and transformation losses from the transmission-level voltage are avoided.

TCRDF proposes to install three Caterpillar (CAT) G3520C engines with CAT SR4B generators (Gensets); each Genset includes an IC engine and electrical generator along with associated controls and enclosure, with the complete Genset manufactured by CAT. The performance specifications for the Gensets are included in **Appendix D**.

The proposed equipment will operate continuously 24 hours per day, 7 days per week, and 52 weeks per year with scheduled and unscheduled shutdowns for maintenance and repair functions. The three IC engines will be fueled from the existing landfill's LFG stream at the site, collected by the blowers and currently combusted in an enclosed operating flare to destroy the methane and volatile organic compounds (VOCs) in the LFG. Approximately 17.82 million British

thermal units per hour (MMBTU/hr) of LFG are required to produce 1.6 MW of power for each Genset; for a total of 52 MMBTU/hr to produce 4.8 MW of power.

The Project will require installation of an interconnect to the electrical grid in order to operate. As such, a description of the activities required to complete this interconnect is included in this Project Description. TCRDF is already connected to the Pacific Gas & Electric (PG&E) power grid via a series of power poles that stretch from the site to the nearby PG&E substation located approximately 2,500 feet to the northeast of the site. The additional electrical cables required for the Project will be strung by utility (PG&E) personnel or utility contractors on the existing infrastructure (poles), with the exception of one or two new poles that will be installed at the Project location (within the TCRDF property). Installation of new poles would occur within or adjacent to the Project location on the TRCDF property and on already disturbed, non-natural areas of the site. The extent of any off-site impact would be limited to stringing of electrical cable on existing infrastructure. Therefore, there would be no new areas of ground disturbance off site associated with the required electrical interconnect. WMAC has estimated the work would require approximately 2 weeks to complete and would involve a maximum of 5 utility trucks per day.

9. Surrounding land uses and Setting

Lands immediately west and south of the project site have been acquired by the San Francisco Bay Wildlife Refuge, and are currently being used for salt production by pond evaporation. A PG&E substation is located to the north of the project site. Additionally, some of the land to the north and east of the site is being used to grow hay, and for grazing by a small number of horses and cattle.

The Catellus Pacific Commons Project is located to the east approximately one-quarter mile from the project site at its nearest point. The Catellus site is approximately 738 acres of which 433 acres remains as wetlands and open space. The remainder of the Catellus site is developed with commercial, retail, and industrial uses.

10. Other public agencies whose approval is required

Bay Area Air Quality Management District: Authority to Construct/Permit to Operate a Landfill Gas to Energy Plant; City of Fremont: Building Permit.

Findings

Project Description, Location, and Setting

This IS has been prepared for the TCRDF LFG to Energy plant. A detailed description is included in the Project Summary section.

Potentially Significant Impacts Requiring Mitigation

This IS found potentially significant environmental impacts that may require mitigation for biological resources, and cultural resources. Air quality impacts would be less than significant after BAAQMD permitting requirements are met.

Discussion of Environmental Impacts

Note: The Project was previously evaluated by Fremont CDD for consistency with the existing TCRDF CUP. Fremont concluded that the Project was consistent with the landfill's CUP (see **Appendix A**); however the BAAQMD determined that additional CEQA analysis is required prior to an AC application evaluation.

An Environmental Impact Report (EIR) was prepared by the Fremont for the TCRDF Landfill Closure and Land Use Plan (State Clearinghouse #20061122013). A draft EIR (DEIR) was prepared in May 2007 and the Final EIR was issued in July 2007, and certified by Fremont in October 2007. Copies of both the Final EIR as well as the DEIR are provided as **Appendix E.** An amendment to the City Charter approving a rezoning of a 46-acre portion of the TCDRF site, including the proposed Project location, was approved in 2007. This amendment changes the area in question from an agricultural use to a light industrial use designation that conforms to the approved interim and final land use plans approved by Fremont for the TCDRF site. These activities include excavation of native soil on site for use in final capping of the landfill, equipment use and truck traffic associated with final capping and landfill closure activities, and continued concrete recycling activities and use of the on-site Corporation Yard, as well as ongoing operation of the TCDRF LFG collection and control system (GCCS). A copy of the 2007 amendment is provided as **Appendix H**.

Note that the proposed Project is a similar use to the current operation of the LFG flare at the TCRDF (combustion of LFG); and the Project location is adjacent to the flare. Although continued operation of the GCCS is not specifically included as part of the 'Project' in the EIR, it is presented in Section 2.2 of the EIR (Description of Current Uses), and the flare is described as operating under a permit issued by the BAAQMD. Further, continued flare operation, as well as continued operation of the site's entire gas collection and control system, is discussed in Section 4.5.2.3 of the EIR, as follows:

> "During the 30-year post-closure period, the landfill gas control system, including the landfill flare and condensate collection system, will be maintained and monitored as outlined in the Final Closure and Postclosure Maintenance Plan, in accordance with federal and state regulations for solid waste disposal facilities."

As such, it is reasonable to conclude that approval of the Final EIR encompassed continued operation of the landfill gas flare at its current location, adjacent to the proposed Project location.

Each of the potential CEQA impact categories presented in this Section was discussed in detail in the EIR, and information contained in the EIR is directly provided and/or referenced within this Section. Excerpts from the EIR are indicated by italics in the following discussions. A copy of the DEIR, including Section 4 (Environmental Setting, Impacts, and Mitigation), as well as the FEIR, are included in this IS as **Appendix E**. Note that while there are several common elements between the 2007 EIR and this Project, this IS is not a modification of the previous EIR and constitutes a separate CEQA process.

Visual Resources and Aesthetics Less Than Significant Impact

Refer to Section 4.10 of **Appendix E** for additional discussion of this topic.

Comparison of Project to Approved 2007 EIR Activities

The Project includes three LFG to Energy engines each with a 16-inch diameter, nominally 31 feet tall stack. The existing landfill has a landfill gas flare of approximately the same height and a diameter of approximately 5 feet, which is located adjacent to the Project. In addition, the Project is located near the base of the landfill. The landfill is the prominent visual feature at the site and it has a maximum height of approximately 150 feet and is about 115 acres in size. Therefore, based on the criteria listed above, the Project will have a less than significant impact on visual resources.

Thresholds of Significance

As stated in the 2007 EIR, a visual and aesthetics impact is significant if the project will:

- *substantially alter existing views of scenic vistas or resources; or*
- *substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway; or*
- *substantially degrade the existing visual character or quality of the site and its surroundings; or*
- *create a new source of substantial light or glare which will adversely affect day or nighttime views in the area.*

The 2007 EIR concluded:

Closure of the landfill and continued operation of the Corporation Yard and concrete recycling facility under the proposed project would not substantially alter views or scenic vistas or substantially degrade the existing visual character of the site or its surroundings. (Less Than Significant Impact)

Agricultural Resources No Impact

While the 2007 EIR does not specifically address agricultural resources, the Project site is on a portion of the TCRDF site with a Planned District General Plan Land Use description, and is designated for Light Industrial Use. The other areas of the TCRDF site have an Agricultural General Land Use description, as do some adjacent parcels; however, the Project use at the proposed location will not impact potential agricultural uses on any adjacent parcels. Therefore, the Project will have No Impact.

Air Quality Impact Less Than Significant Impact

An application for an AC for the Project was submitted to the BAAQMD on December 23, 2009. The application remains under BAAQMD review.

The following Project emissions information was included in the Addendum to Application for an Authority to Construct / Permit to Operate for a Landfill Gas-To-Energy Facility and a Major Modification to the Title V Permit, Tri-Cities Fill Area 1 Landfill, Fremont, California (Facility No. 2246); Application No's: 21444 and 21445, submitted to the BAAQMD on June 6, 2011.

Emissions

The Criteria Air Pollutant (CAP) emissions from the Project engines presented in **Table 1,** from the previously noted June 6, 2011 Addendum, reflect changes in emissions factors for oxides of nitrogen (NO_x) and carbon monoxide (CO), the maximum firing rate, and the LFG flow rate to the engines presented in the original December 2009 application. There are no baseline emissions associated with the Project engines as they are new equipment; however, the flare and other site emissions sources do have baseline emissions.

Table 1: Summary of Criteria Air Pollutant Emissions

Pollutant	Basis	Total Emissions from Engines (Tons/Year)
NMOC/POC	BACT (120 ppmv as methane, outlet)	11.23
CO	BACT (3.6 g/BHP-hr)	232.87
NO_x[1]	Manufacture Guarantee and BACT (0.6 g/BHP-hr)	38.81
SO_x	BACT (150 ppmv as H2S)	11.57
PM-10	BACT (0.1 g/BHP-hr)	6.47

[1]Note that the initial permit application used a NO_x emission factor of 0.5 g/BHP-hr. An addendum to the permit application was submitted June 6, 2011 revising the emission factor to 0.6 g/BHP-hr. Emissions and the emission factor included in this analysis reflect the updated application.

Air Quality CEQA Analysis

CEQA information was submitted to Fremont and to the BAAQMD on March 31, 2011 ("Greenhouse Gas And Criteria Pollutant Emissions, Proposed Landfill Gas To Energy Facility At Tri-Cities Recycling And Disposal Facility Addendum To Bay Area Air Quality Management District Application Numbers 21444 and 21445 Fremont, California"). This submittal provided additional analysis of the impact of the Project on CAP and greenhouse gas (GHG) emissions.

GHG Emissions Estimate

Operation of the proposed LFG to Energy plant allows LFG to be diverted away from the existing LFG flare and to the IC engines for the purpose of generating electricity that will be delivered to the utility company; however, the potentially displaced emissions from the flare and utility provider are not included in this analysis. Adjusted net GHG emissions for the proposed engines were calculated based only on the engine Project Potential to Emit (PTE). Carbon dioxide (CO_2) and methane (CH_4) emissions were calculated based on a fuel flow rate of 580.9 standard cubic feet per minute (scfm) per engine, and 99 percent destruction efficiency of methane in the engines. The nitrous oxide (N_2O) emissions were calculated based on a concentration of 0.001 percent N_2O in LFG and 76.8 percent destruction in the engines. The emissions shown in this analysis include the pass-through CO_2 as well as CO_2 from combustion.

The GHG emissions for the Project LFG to Energy engines are approximately 1,842 metric tons of CO_2 equivalent ($MTCO_2e$) per year, as shown in **Table 2**.

In June 2010, the BAAQMD adopted a GHG threshold of significance for stationary sources of 10,000 $MTCO_2e$ and a threshold of significance of 1,100 $MTCO_2e$ per year or 4.6 $MTCO_2e$ per service population per year, or compliance with a qualified GHG reduction strategy for non-stationary sources. In March 2012, these thresholds were determined by the Alameda County Superior Court to be subject to CEQA review, and the BAAQMD was required to conduct a review of the environmental impacts from the adoption of these thresholds. In light of this order, the BAAQMD has reviewed the potential thresholds of significance for this project and determined that the most appropriate threshold of significance for this project is 10,000 $MTCO_2e$ per year. The evidence to support this threshold is outlined in the BAAQMD document *Proposed Thresholds of Significance*, dated May 3, 2010.

After reconsidering the data underlying the thresholds, the BAAQMD is confident that the threshold of 10,000 MTCO2e is scientifically sound and believes the threshold is appropriate to this project.

Table 2 – Greenhouse Emissions for Project and Baseline Scenarios

Pollutant	Engines PTE (MT/yr)	CEQA Significance Threshold (MT/yr)
CO_2[1]	47,365	NA
CH_4	86.1	NA
N_2O	0.121	NA
Total CO_2e[2]	1,842	10,000

[1] LFG derived CO_2 emissions are biogenic and are not included in the total CO_2 emissions or compared against the CEQA threshold. It is included as an informational item only.
[2] Carbon dioxide equivalent.
NA=not applicable
( ) Indicates negative value

Criteria Air Pollutant Analysis

Routing LFG to the LFG to Energy project would result in decreased emissions of CAPs from the flare proportional to the volume of gas that is diverted to the Project engines; however, as a conservative measure, this reduction in emissions from the flare is not included in this analysis.

Table 3 shows the Project CAP emissions and BAAQMD CEQA thresholds. The emissions from the LFG to Energy project do not exceed the threshold of significance for Particulate Matter (PM_{10}). No BAAQMD threshold of significance has been established for sulfur dioxide (SO_2). The BAAQMD threshold of significance for carbon monoxide (CO) is based on resulting downwind concentrations rather than an emission rate. The next section discusses CO modeling and significance.

Table 3 – CAP Emissions for Project and Baseline Scenarios

Pollutant	Engines PTE (tons/yr)	CEQA Significance Threshold (tons/yr)
POC	11.23	10
NO_x	38.81	10
CO	232.87	see text
SO_2	11.57	NA
PM_{10}	6.47	15
$PM_{2.5}$[1]	6.47	10

[1] $PM_{2.5}$ is conservatively assumed to be equal to PM_{10}. Both are well below respective CEQA Significance Thresholds.
( ) Indicates negative value.

The Project results in potentially significant increases in precursor organic compounds (POC) and NO_x emissions. However, ERCs or contemporaneous emission reductions must be provided for any net increase in POC and NO_x emissions associated with the LFG Engines in order to comply with BAAQMD Rule 2-2-302. The total emission increase after the acquisition of offsets should be considered for purposes of CEQA, per BAAQMD CEQA guidance. See the following discussion of Required Offsets for additional information on POC and NO_x offsets as Project mitigation.

Required Offsets

The need for NO_x offsets or emission reduction credits (ERCs) was updated in the June 6, 2011 submittal based upon the revised CAP emission factors. The amount of POC offsets remained the same as presented in the original BAAQMD application, as these emissions were not affected by the changes cited above. The revised NOx emissions and offset requirements are summarized in **Table 4**.

Table 4 – Summary of Project Emissions and Offsets

Compound	Project Difference (tons/yr)	Offsets Required (tons/yr)	CEQA Project Increase (tons/yr)
POC	11.23	12.15	(0.92)
NO_x	38.81	43.60	(4.79)
CO	232.87	NA	232.87
SO_2	11.57	NA	11.57
PM10	6.47	NA	6.47

Note: Net Project Increase values do not take into account contemporaneous reduction due to removal from service of three small diesel engines.

As indicated in **Table 4**, emissions of both NO_x and POCs require offsets. As previously discussed, District rules require these emissions to be offset before the District can issue an AC for the Project. Providing emission offsets (either from the applicant or the District's small facility banking account) for these emissions would reduce emissions of POC and NO_x below significance levels; therefore, all Project CAP emissions would be considered less than significant for CEQA purposes.

Additional Carbon Monoxide Analysis

The BAAQMD CEQA threshold for CO is based on the California Ambient Air Quality Standard (CAAQS) for CO rather than a mass emission rate. Therefore, a screening air dispersion analysis was performed to determine downwind concentrations of CO. Downwind concentrations of CO emitted by the engines were modeled using SCREEN3, a screening-level model approved by the USEPA. As a screening model, SCREEN3 uses a conservative approach of assuming the "worst case" meteorological conditions to calculate downwind concentrations.

Table 5- Carbon Monoxide Modeling Results

Pollutant	Averaging Period	Max Modeled Concentration (1-hr average) (µg/m3)	Background Concentrations (µg/m3)	Background + Modeled Concentration (µg/m3)	CAAQS (ppmv)	Does CO Exceed CAAQS?
CO	1 hr	201	2,800	3,001 (2.6 ppmv)	20	No
CO	8 hr	80	1,400	1,480 (1.3 ppmv)	9	No

Due to the meteorological assumptions inherent in the SCREEN3 model, the downwind concentration in **Table 5** is a conservative estimate. The SCREEN3 model calculates the peak one-hour concentration from a source. This modeling approach considers the maximum potential concentration rather than only the maximum outside the facility boundary. By including concentrations that may occur within the facility boundary, the modeling has included concentrations that may not occur off site in "ambient air." SCREEN3 is limited to calculating only one-hour average concentrations and cannot calculate longer averaging times. **Table 5** shows a summary of the modeling results and the CAAQS, and shows that the CO emissions from the Project do not exceed ambient air quality standards and are therefore below CEQA significance levels.

Toxic Air Compounds (TACs) and $PM_{2.5}$

A health risk assessment (HRA) would normally be indicated as part of an IS. However, the distance from the Project to the nearest receptor is approximately 2,300 feet (~0.5 miles) and 1.4 miles to the nearest residential receptor. Based on the relatively great distances from the Project to the nearest receptors the District believes that a screening level risk assessment will satisfy the requirements for this IS. **Figure 2 (**attached) shows the locations of nearby receptors and their distances from the Project. Furthermore, increased TAC emissions associated with combustion of LFG at the Project engines are directly related to TAC emissions that would have otherwise occurred from destruction of LFG in landfill's flare; there will be no net increase, associated with the Project, in the total volume of LFG combusted at TCRDF. Similar to criteria pollutant and GHG emissions, flare TAC emissions will not occur when engines are in operation.

Additionally, given the large distance to receptors, the District does not expect that the existing mobile equipment emissions at this facility will present a high risk to receptors. The engine stacks are not high enough to expect significant or unacceptable health impacts at distanced of 2,000+ feet, and the District will be conducting the HRA on all permitted sources to ensure that

this is this case, as part of the AC process. Furthermore, with the imminent closure of the landfill, the waste delivery truck traffic has decreased considerably and will soon cease, and flare emissions will be reduced when the engines come on line. In the long run, these reductions should significantly reduce the cumulative impacts from the landfill and energy plant combined. In consideration of these factors, the District believes that neither an on-site nor off-site cumulative emissions study would be required to be included in the HRA.

To evaluate whether health risk impacts (including $PM_{2.5}$ impacts) exceed BAAQMD thresholds of significance, SCREEN3 was used to estimate pollutant concentrations at the nearest receptor. The nearest receptor is located approximately 2,300 feet away, which results in significant dispersion of pollutants before they reach the receptor. SCREEN3 can only calculate hourly concentrations and not annual averages. To adjust the modeled concentrations to an annual average, modeled emissions were multiplied by 0.08 per Table 4.3 of the Department of Toxic Substances Control (DTSC) Hotspots Guidance (August 2003). Model outputs are included in **Appendix F**.

Note that this evaluation does not take into account the potential reduced emissions from the LFG flare that would result from the Project. Such reductions would result in lower risk from the Project.

The downwind concentration of each toxic pollutant plus $PM_{2.5}$ was calculated using the SCREEN3 results. That concentration was then multiplied by the inhalation unit risk to calculate the incremental cancer risk from each compound. The increased cancer risk from each compound was then totaled to calculate the total increase of the site-wide health risks from the whole Project, which is less than the BAAQMD threshold of significance of 10 in a million ($10*10^{-6}$); therefore the increased cancer risk from the project is less than significant.

The concentration of each toxic pollutant, resulting cancer risk, and chronic non-cancer risk is shown in **Table 6**. Acute hazard is shown in **Table 7**, which includes only pollutants with acute toxicity criteria.

To calculate non-carcinogenic acute and chronic health risk, the calculated concentration of each toxic compound was divided by the Reference Exposure Level (REL), a concentration below which no adverse health impacts are expected. If the result, known as the hazard quotient, is less than 1.0, non-carcinogenic health impacts are not expected. To evaluate the combined impact of the compounds, the hazard quotients were totaled to find the hazard index. The BAAQMD threshold of significance is a hazard index of 1.0, and each total hazard index from the Project is less than 1.0; therefore, the Project as a whole is not expected to have significant non-carcinogenic impacts.

Note that in order to obtain an AC for this Project, these same risk thresholds must be met during the BAAQMD's permitting process. Therefore, the BAAQMD's HRA, that will be prepared as

part of the AC permitting process, should confirm that the Project's impacts are below these CEQA significance levels.

Finally, the $PM_{2.5}$ concentration at the nearest receptor was calculated using the SCREEN3 results. The increase in $PM_{2.5}$ at the nearest receptor was 0.19 $\mu g/m^3$ and is less than 0.3 $\mu g/m^3$, the BAAQMD threshold of significance.

Table 6- Chronic Toxic Emission Modeling and Risk Results

COMPOUNDS	Emission Rate		Project Impact	Inhalation Unit Risk	Cancer Risk	REL	Hazard
	lb/hr	g/s	µg/m³	(µg/m³)-¹	unitless	µg/m³	unitless
1,1,1-Trichloroethane	2.39E-04	3.01E-05	3.03E-05	NA		1,000	3.03E-08
1,1,2,2-Tetrachloroethane[1,2]	3.00E-04	3.79E-05	3.81E-05	0.000058	2.21E-09	70	5.44E-07
1,1-Dichloroethane[1]	3.54E-04	4.47E-05	4.49E-05	0.0000016	7.19E-11	NA	
1,1-Dichloroethene[2]	1.74E-04	2.19E-05	2.20E-05	NA		200	1.10E-07
1,2-Dichloroethane	1.77E-04	2.23E-05	2.25E-05	0.000021	4.72E-10	NA	
Acrylonitrile[1,3]	6.79E-05	8.56E-06	8.61E-06	0.00029	2.50E-09	5	1.72E-06
Benzene[1,3]	2.53E-03	3.19E-04	3.20E-04	0.000029	9.29E-09	60	5.34E-06
Carbon disulfide[3]	1.08E-03	1.36E-04	1.37E-04	NA		800	1.72E-07
Carbon tetrachloride[1,3]	2.75E-04	3.47E-05	3.49E-05	0.000042	1.47E-09	40	8.73E-07
Chlorobenzene[3]	2.01E-04	2.54E-05	2.56E-05	NA		1,000	2.56E-08
Chlorodifluoromethane[2]	5.49E-04	6.93E-05	6.97E-05	NA		50,000	1.39E-09
Chloroethane[3]	2.19E-04	2.77E-05	2.78E-05	NA		30,000	9.28E-10
Chloroform[1,3]	2.14E-04	2.70E-05	2.71E-05	0.0000053	1.44E-10	300	9.03E-08
Dichlorobenzene[2]	9.47E-04	1.19E-04	1.20E-04	0.000011	1.32E-09	800	1.50E-07
Dichlorodifluoromethane	3.68E-03	4.64E-04	4.67E-04	NA		700	6.67E-07
Dichlorofluoromethane	4.83E-03	6.09E-04	6.12E-04	NA		NA	
Dichloromethane[1,3]	5.93E-04	7.48E-05	7.52E-05	0.000001	7.52E-11	400	1.88E-07
Ethylbenzene[1,3]	2.11E-02	2.66E-03	2.68E-03	0.0000025	6.70E-09	2,000	1.34E-06
Ethylene dibromide[1,2]	3.36E-04	4.24E-05	4.26E-05	0.000071	3.03E-09	9	4.74E-06
Hexane[3]	4.29E-03	5.41E-04	5.44E-04	NA		7,000	7.77E-08
Mercury (total)[3]	3.08E-05	3.88E-06	3.90E-06	NA		0.03	1.30E-04
Methyl ethyl ketone[2]	2.54E-02	3.20E-03	3.22E-03	NA		5,000	6.44E-07
Perchloroethylene[1,2]	2.49E-03	3.14E-04	3.16E-04	0.0000059	1.87E-09	35	9.03E-06
Toluene[3]	6.55E-02	8.26E-03	8.31E-03	NA		300	2.77E-05
Trichloroethylene[1,3]	1.22E-03	1.54E-04	1.55E-04	0.000002	3.10E-10	600	2.58E-07
Vinyl chloride[1,3]	8.95E-04	1.13E-04	1.13E-04	0.000078	8.85E-09	1,000	1.13E-07
Xylenes[3]	5.06E-02	6.38E-03	6.41E-03	NA		700	9.16E-06
Hydrogen Bromide[2]	4.14E-03	5.22E-04	5.25E-04	NA		315	1.67E-06
Hydrogen Chloride[3]	1.31E-01	1.65E-02	1.66E-02	NA		9	1.84E-03
Hydrogen Fluoride[3]	2.30E-02	2.90E-03	2.91E-03	NA		14	2.08E-04
Formaldehyde[3]	6.41E-01	8.09E-02	8.13E-02	0.000006	4.88E-07	9	9.04E-03
Total					5.26E-07		1.13E-02
BAAQMD Threshold of Significance					1.00E-05		1.00E+00

[1]Slope factor obtained from Toxicity Criteria Database

[2]REL based on RfD obtained from Integrated Risk Information System.

[3]REL obtained from TCDB.

Table 7- Acute Toxic Emission Modeling and Risk Results

COMPOUNDS	Acute Project Impact	REL	Hazard
	µg/m³	µg/m³	unitless
1,1,1-Trichloroethane (methyl chloroform)	3.79E-04	68,000	5.57E-09
Carbon tetrachloride[1,3]	4.37E-04	1,900	2.30E-07
Chloroform[1,3]	3.39E-04	150	2.26E-06
Dichloromethane (Methylene Chloride)[1,3]	9.40E-04	14,000	6.71E-08
Mercury (total)[3]	4.88E-05	0.60	8.13E-05
Perchloroethylene (tetrachloroethylene)[1,2]	3.95E-03	20,000	1.98E-07
Toluene[3]	1.04E-01	37,000	2.81E-06
Vinyl chloride[1,3]	1.42E-03	180,000	7.88E-09
Xylenes[3]	8.02E-02	22,000	3.64E-06
Hydrogen Chloride[3]	2.08E-01	2,100	9.88E-05
Hydrogen Fluoride[3]	3.64E-02	240	1.52E-04
Formaldehyde[3]	1.02E+00	55	1.85E-02
Total			1.88E-02
BAAQMD Threshold of Significance			1.00E+00

Construction Emissions

Construction emissions were calculated using the URBEMIS2007 model. Construction emissions are based on the Project schedule and equipment needs. It was estimated that construction would occur over five months and require the equipment shown in **Table 8**. URBEMIS output files are included in **Appendix G**. Construction CAP emissions are below BAAQMD thresholds of significance for construction emissions, as shown in **Table 9**. Note that the threshold of significance for PM_{10} and $PM_{2.5}$ emissions from fugitive dust is best management practices (BMP) rather than an emission rate.

Table 8- Construction Equipment List

Equipment	Count
Fork Lift	2
Crane	1
Back Hoe	1
Dump Truck	2
Bull Dozer	1
Skid Loader	1

Table 9- Construction Emissions and Thresholds

Compound	Proposed Project	BAAQMD Threshold of Significance
	lb/day	lb/day
Nitrogen Oxides (NO_X)	41.22	54
Carbon Monoxide (CO)[5]	20.53	None
Sulfur Dioxide (SO_2)	0.00	None
Precursor Organic Compounds (POCs)	5.16	54
Particulate Matter (PM_{10}) (Dust)	1.79	BMP
Particulate Matter (PM_{10}) (Exhaust)	3.00	82
Particulate Matter ($PM_{2.5}$) (Dust)	0.25	BMP
Particulate Matter ($PM_{2.5}$) (Exhaust)	1.65	54
GHG	5113.60	6,027[1]

BMP = Best management practices.

[1]BAAQMD has a threshold of significance of 1,100 $MTCO_2e$ per year. Value shown is average daily emission rate equal to 1,100 $MTCO_2e$.

Biological Resources Less Than Significant Impact With Mitigation

Refer to Section 4.3 of **Appendix E** for additional discussion of this topic. Note that this section of **Appendix E** references a Biological Resource Report prepared by H.T. Harvey & Associates, Inc. (HT Harvey), which was based on field surveys of the TCRDF site conducted on April 20, May 1, May 18, June 13 and June 20, 2006 by HT Harvey. Note also that continued operation of the site's LFG flare during the landfill post-closure period is specifically discussed in the EIR (see Section 4.5.2.3). This use is similar to the proposed operation of the Project IC engines, and will combust LFG that will be diverted from the existing flare.

Comparison of Project to Approved 2007 EIR Activities

Compared to the approved activities described in the 2007 EIR, this Project will be more limited in area (less than an acre compared to over 200 acres) and will be constructed on an already developed area in the Corporation Yard of the landfill site. The LFG to Energy plant will be located adjacent to the landfill's existing flare where LFG is already processed. The Project location is in an area of the landfill property that already contains various structures and various ongoing activities; therefore, special status plant or animal species or habitants are much less likely to be found there, compared to the extensive areas evaluated in the 2007 EIR. Note that discussions of potential impact to individual tiger salamanders (but not tiger salamander habitat) were specific to excavations in the borrow area of the landfill property; where the activities would be expected to be much more invasive and extensive than the grading activities for the Project. However, as discussed in the EIR excerpt in **Appendix E**, mitigation measures have been specified to reduce or avoid possible impacts to tiger salamanders and other special status species. These mitigation measures established for the site in the 2007 EIR would also apply to the Project, and as such, the finding of Less Than Significant Impact with Mitigation would also apply to the Project. The mitigation measures in the 2007 EIR were related to closure and post-closure activities at TCRDF and have not been implemented as of February 2012; however, closure activities are expected to start by the second quarter of 2012 and before the construction of the proposed Project.

Thresholds of Significance

As stated in the EIR, a biological resources impact is considered significant if the project will:

- *have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations;*
- *have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations;*
- *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;*
- *conflict with any local ordinances protecting biological resources, such as a tree preservation ordinance; or*

- *conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.*

The EIR concluded the following:

Landfill closure, excavation of a borrow area, and continued operation of a Corporation Yard and concrete recycling facility at the TCRDF would not result in substantial impacts to sensitive habitats. (Less Than Significant Impact)

No special [status] species are expected or have been observed on the project site. The proposed project therefore would not result in substantial impacts to special status plants or their habitat. The proposed project would not result in impacts to special status plants. (Less Than Significant Impact)

The proposed project would not result in substantial impacts to breeding or upland habitat for California tiger salamander. (Less Than Significant Impact)

Grading and excavation activities in the borrow area during landfill closure could impact individual tiger salamanders if they move onto the site from breeding ponds to the east. (Significant Impact)

The proposed project would not result in substantial adverse impacts to special status animal species habitat. (Less Than Significant Impact)

Implementation of the proposed landfill closure, General Plan amendment, and zoning, including soil borrow activities, and continued operation of a Corporation Yard and concrete recycling facility, would not result in significant impacts to sensitive habitats or special status plants or substantial impacts to habitat for special status animal species. (Less Than Significant Impacts)

Implementation of proposed mitigation measures would reduce or avoid possible impacts to individual California tiger salamanders, Burrowing Owls, Alameda Song Sparrows, Salt Marsh Yellowthroats, Salt Marsh Harvest Mice, and Salt Marsh Wandering Shrews to a less than significant level. (Less Than Significant Impacts with Mitigation)

Mitigation measures

The Mitigation measures included in the 2007 EIR include the following:

MM BIO-5.1: <u>Exclusion of California Tiger Salamanders from Project Site.</u> *To minimize possible impacts to individual tiger salamanders from borrow activities, a barrier to tiger salamander dispersal shall be placed along the eastern boundary of the site, from the existing entrance road southeast to the southeastern limit of the borrow area. This barrier should be designed to prevent salamanders dispersing from breeding sites east of the railroad tracks from entering the project area. This barrier shall be designed by a qualified herpetologist, and checked and maintained regularly to ensure that gaps that could allow salamanders to enter the project site do not occur. Because the borrow activities are proposed to be phased, such a*

barrier shall also be placed between borrow areas and portions of the Resource Recovery Area not being used for borrow activities, to prevent any salamanders from entering the active borrow area.

MM BIO-5.2: <u>Salvage of Individual Tiger Salamanders During Project Activities.</u> *While Mitigation Measure BIO-5.2 would minimize the probability of salamanders entering the site, any salamanders already present in the borrow area shall be salvaged and translocated off site to the extent practicable. Although detecting every tiger salamander on a site is not feasible due to this species' secretive, subterranean habits, a qualified herpetologist shall be present during removal of debris and initial clearing and grubbing on the Resource Recovery Area prior to excavation at a particular borrow area. The herpetologist would look for individual tiger salamanders that may be taking refuge under debris or in the few mammal burrows present on the site. Any individuals detected would be captured and translocated to a safe location outside the project area; this relocation site shall be approved by the USFWS prior to translocation.*

MM BIO-5.3: <u>On-site Construction Crew Education Program for Tiger Salamander.</u> *A worker education program shall take place before the commencement of borrow excavation activities. A USFWS-approved biologist shall explain to construction workers how best to avoid impacts to California tiger salamanders. The approved biologist will conduct a training session that would be scheduled as a mandatory informational field meeting for contractors and all construction personnel. The field meeting will include topics on species identification, life history, descriptions, and habitat requirements during various life stages. Handouts, illustrations, photographs, and project mapping showing areas where minimization and avoidance measures are being implemented will be included as part of this education program. The program will increase the awareness of the contractors and construction workers about existing federal and state laws regarding endangered species as well as increase their compliance with conditions and requirements of resource agencies.*

Prior to the start of work each day, dedicated construction personnel will inspect pits that were left open overnight for tiger salamanders. If a tiger salamander is encountered during project construction, the following protocol will be implemented:

- *All work that could result in direct injury, disturbance, or harassment of the individual animal must immediately cease;*
- *The foreman will be immediately notified;*
- *The foreman will immediately notify a qualified biologist, who in turn will immediately notify USFWS and CDFG; and*
- *If approved by the USFWS and CDFG, the qualified biologist will remove the individual to a safe location nearby.*

MM BIO 7.1: <u>Pre-construction Surveys for Burrowing Owl.</u> *Pre-construction surveys for Burrowing Owls shall be conducted in potential habitat (inactive slopes of the landfill and the borrow area) in conformance with CDFG protocols, no more than 30 days prior to the start of any ground-disturbing activity such as clearing and grubbing, excavation, or grading. If no Burrowing Owls are located during these surveys, no additional action would be warranted. However, if Burrowing Owls are located on or immediately adjacent to the site the following mitigation measures will be implemented.*

- *Buffer Zones. If Burrowing Owls are present during the nonbreeding season (generally September 1 to January 31), a 150-foot buffer zone, within which no new project-related activity will be permissible, shall be maintained around the occupied burrow(s). During the breeding season (generally February 1 to August 31), a 250-foot buffer, within which no new project-related activity will be permissible, will be maintained between project activities and occupied burrows. Owls present at burrows on the site after February 1 will be assumed to be nesting on or adjacent to the site unless evidence indicates otherwise. This protected area will remain in effect until August 31, or at the discretion of the CDFG and based upon monitoring evidence, until the young owls are foraging independently.*

- *If ground-disturbing activities will directly impact occupied burrows, eviction outside the nesting season may be permitted pending evaluation of eviction plans by, and receipt of formal written approval of the relocation from the CDFG. No Burrowing Owls shall be evicted from burrows during the nesting season (February 1 through August 31) unless evidence indicates that nesting is not actively occurring (e.g., because the owls have not yet begun nesting early in the season, or because young have already fledged late in the season). A report on the results of the pre-construction survey(s) for Burrowing Owls, including any required buffer zones or protection measures, shall be submitted to the Planning Director prior to the start of grading each year and/or at the start of a new phase of grading or landfill closure.*

MM BIO-8.1: *Prior to ground disturbing activities in the borrow area, suitable habitat for breeding by Alameda Song Sparrow or Saltmarsh Common Yellowthroats (e.g., dense wetland and ruderal vegetation) will be identified and mapped by a qualified biologist. To the extent feasible, vegetation that could be used for breeding by these species within the area to be graded during the next year will be removed during the non-breeding season (mid-August to late February). In addition, all vegetation that could serve as suitable nesting habitat for these species, and that is located within 50 feet of areas of disturbance, shall be removed to prevent the project from disturbing active nests. During the construction period, the project site and adjacent areas shall be maintained so that no vegetation suitable for nesting by Song Sparrows and Common Yellowthroats is allowed to develop. If vegetation is removed during the non-breeding season prior to construction, no impacts to nesting would occur.*

A report documenting the removal of vegetation within the active borrow area shall be submitted to the Planning Director prior to the start of grading each year.

MM BIO 8.2 *In the event suitable vegetation has not been removed and project activities are to occur during the breeding season in or near potential nesting habitat for Alameda Song Sparrow or Saltmarsh Common Yellowthroats, a qualified ornithologist shall conduct pre-disturbance surveys no more than 15 days prior to the initiation of disturbance in any given area. If Song Sparrow or Common Yellowthroat nests are found to be present within or near (i.e., within 50 feet of) the impact areas during the breeding season, a buffer free from any new project-related disturbance shall be established around any active nest, the width of this buffer being determined by an experienced ornithologist in consultation with CDFG. This buffer shall be maintained until nesting has been completed.*

A report on the results of any pre-construction surveys for Alameda Song Sparrow and Saltmarsh Common Yellowthroats, including any required buffer zones or protection measures, shall be submitted to the Planning Director prior to the start of grading each year.

MM BIO 10.1: <u>Exclusion of Individual Salt Marsh Harvest Mice and Salt Marsh Wandering Shrews from Project Site.</u> *A barrier to exclude salt marsh harvest mice and salt marsh wandering shrews from the project's impact areas shall be constructed under the guidance of a qualified biologist. The fence shall consist of a three-foot tall, tight cloth silt fence toed into the soil at least three inches deep and supported with stakes. Additionally, vegetation within the impact area and within ten feet of the barrier shall be removed by hand; such bare areas are unlikely to be crossed by salt marsh harvest mice and salt marsh wandering shrews and provide additional insurance against the dispersal of individuals into the project site. Alternatively (if the barrier of bare ground is not practicable), a three-foot-high smooth metal fence toed into the soil at least three inches shall be constructed instead. All fence construction and vegetation removal shall be conducted under the supervision of a qualified biological monitor who is permitted by the USFWS to move salt marsh harvest mice out of the construction area.*

MM BIO-10.2: <u>Salvage of Individual Salt Marsh Harvest Mice and Salt Marsh Wandering Shrews During Project Activities.</u> *While Mitigation Measure BIO-10.1 would minimize the probability of salt marsh harvest mice and salt marsh wandering shrews entering the site, any individuals already present in the impact areas should be salvaged and translocated off site to the extent practicable. Although detecting every individual on a site is not feasible due to these species' secretive habits, a qualified mammalogist shall be present during construction of the barrier fence, removal of vegetation, and initial clearing and grubbing within ten feet of the barrier fence. The mammalogist would look for individual salt marsh harvest mice and salt marsh wandering shrews that may be present within the project area. Any individuals detected would be captured and translocated to a safe location within the closest suitable, pickleweed-dominated habitat.*

A report documenting the construction of the exclusionary fencing and translocation of any salt marsh harvest mice or salt marsh wandering shrews shall be submitted to the Planning Director prior to the start of grading of the borrow area each year.

MM BIO-10.3: <u>On-site Construction Crew Education Program for Salt Marsh Harvest Mice or Salt Marsh Wandering Shrews.</u> *A worker education program will take place before the start of borrow excavation each year. A USFWS approved biologist will explain to construction workers how best to avoid impacts to salt marsh harvest mice and salt marsh wandering shrews. The approved biologist will conduct a training session that would be scheduled as a mandatory informational field meeting for contractors and all construction personnel. The field meeting will include topics on species identification, life history, descriptions, and habitat requirements. Handouts, illustrations, photographs, and project mapping showing areas where minimization and avoidance measures are being implemented will be included as part of this education program. The program will increase the awareness of the contractors and construction workers about existing federal and state laws regarding special-status species as well as increase their compliance with conditions and requirements of resource agencies.*

Cultural Resources Less Than Significant Impact With Mitigation

Refer to Section 4.9 of **Appendix E** for additional discussion of this topic.

Comparison of Project to Approved 2007 EIR Activities

The impacts of the Project do not extend off the landfill property. The Project would be significantly less extensive and would involve less invasive soil disturbance than the activities approved in the 2007 EIR. As discussed in the 2007 EIR, there have been no archaeological sites identified on the site nor have any been identified within one-half mile of the site. However, as further discussed in the 2007 EIR, buried archaeological resources, although unlikely, could be encountered during grading into native soils. Mitigation measures to implement in the event of such an occurrence have been specified in the 2007 EIR, and are included in **Appendix E**. The mitigation measures in the 2007 EIR were related to closure and post-closure activities at TCRDF and have not been implemented as of February 2012; however, closure activities are expected to start by the second quarter of 2012 and before the construction of the proposed Project.

Therefore, the finding for the 2007 EIR of Less Than Significant Impact With Mitigation is applicable to the Project.

Thresholds of Significance

As stated in the EIR, a cultural resources impact is considered significant if the project will:

- *cause a substantial adverse change in the significance of a historic resources as defined in §15064.5- of the CEQA Guidelines; or*
- *Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5- of the CEQA Guidelines; or disturb any human remains, including those interred outside of formal cemeteries; or*
- *Directly or indirectly destroy a unique paleontological resource or site unique geologic feature.*

The following discussion is taken from the 2007 EIR:

An Archaeological literature review and surface reconnaissance of the proposed borrow area was conducted in 2000 to search for evidence of recorded archaeological and/or historic archaeological sites in and around the project area. No recorded archaeological sites (historic and/or prehistoric sites) are located inside the project boundaries and no sites were reported within one-half mile of the site.

Buildings on the site consist of modern modular buildings and metal structures. Based upon a review of the City of Fremont General Plan Historic Resources list, there are no listed historic resources on the site.

Landfilling is reported to have begun on the site in 1967. Debris on the site is therefore unlikely to include historic materials.

Conclusions Regarding Cultural Resources

The proposed closure of the landfill and a General Plan amendment to allow continued use of the Corporation Yard and concrete recycling facilities on a portion of the TCRDF site, with the inclusion of mitigation measures included in the project, would not result in substantial impacts to cultural resources (Less Than Significant Impact with Mitigation)

Mitigation Measures

The Mitigation measures included in the 2007 EIR include the following:

PMM CUL-2.1: *The California Health and Safety Code Section 7050.5 outlines the requirements for handling human remains if found outside of a dedicated cemetery. The county coroner is required to contact the Native Heritage Commission within 24 hours if the coroner recognizes the remains to be those of a Native American. The Native American Heritage Commission then identifies the Most Likely Descendant (MLD) of the deceased Native American. Provisions for reburial will be made with the MLD.*

PMM CUL-2.2: *Section 15064.5 of the CEQA Guidelines identifies steps that should be taken in the event Native American remains, historical resources or unique archaeological resources are accidentally discovered during construction. These steps include immediate evaluation of the find by a qualified archaeologist and implementation of avoidance measures or appropriate mitigation. For future projects that involve ground disturbance, the City of Fremont will include standard conditions that incorporate these measures outlined in the CEQA Guidelines.*

MM CUL 1.1: *In the event cultural materials are found during site grading or excavation in the borrow area, the following measures will be implemented:*

All construction within 50-feet of the find would be halted, the Director of Community Development would be notified, and a qualified archaeologist would examine the find and make recommendations regarding the significance of the find and the appropriate mitigation. Recommendations could include collection, recordation, and analysis of any significant cultural materials.

- *If human remains are discovered, the Alameda County Coroner shall be notified. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission, who shall identify the Most Likely Descendant (MLD) of the deceased Native American.*

- *If the Planning Director finds that the cultural resource find is not a significant resource, work shall resume only after the submittal of a preliminary report and after provisions for reburial and ongoing monitoring are accepted. Provisions for identifying descendants of a deceased Native American and for reburial shall follow the protocol set forth in the CEQA Guidelines. If the site is found to be a significant archaeological site, a mitigation program shall be prepared and submitted to the Director of the Community Development Department for consideration and approval, in conformance with the protocol set forth in Section 15064.5 of the CEQA Guidelines.*

Geology and Soils Less Than Significant Impact

Refer to Section 4.2 of **Appendix E** for additional discussion of this topic.

Comparison of Project to Approved 2007 EIR Activities

Compared to the approved activities described in the 2007 EIR, this Project will be more limited in area, will be constructed on flat terrain, and will be constructed on an already developed area in the Corporation Yard of the landfill site. Compared to final capping of the landfill, which was approved, this Project should cause negligible erosion. And as previously noted (from the 2007 EIR), exposure to seismic hazards can be avoided through standard engineering techniques. As such, Project Geology and Soils impacts would be Less Than Significant.

Thresholds of Significance

As stated in the EIR, a geologic or seismic impact is considered significant if the project will:

- *expose people or structures to substantial adverse effects including the risk of loss, injury or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic related ground failure (including liquefaction), landslides, or expansive soil; or*
- *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 on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse; or*
- *cause substantial erosion or siltation.*

The EIR concluded the following:

The proposed General Plan amendment covers an area underlain by Bay Mud in a seismically active area. Future improvements within this area would not be exposed to seismic hazards that cannot be avoided through standard engineering techniques. (Less Than Significant Impact)

Implementation of the proposed Final Closure and Postclosure Maintenance Plan for the TCRDF would not result in substantial new erosion or sedimentation.
(Less Than Significant Impact)

The proposed closure of the landfill and a General Plan amendment to allow continued use of the Corporation Yard and concrete recycling facilities on a portion of the TCRDF site would not result in substantial geology and soil impacts. (Less Than Significant Impact)

Mitigation and Avoidance Measures

No mitigation or avoidance measures are required.

Hazards and Hazardous Materials — Less than Significant Impact

Refer to Section 4.5 of **Appendix E** for additional discussion of this topic.

The following discussion is taken from the 2007 EIR:

Within the City of Fremont, a number of local, state, and federal regulations govern the use, transport, and storage of hazardous materials. A Hazardous Materials Management Plan is generally required of any facility which generates any quantity of hazardous waste or which handles hazardous materials in amounts greater than 55 gallons for liquids, 500 pounds for solids, and 200 cubic feet for compressed gases. The implementation and enforcement of these local, and state and federal regulations regarding the use, storage and transport of hazardous materials (including setbacks for flammable storage from property lines) reduce the potential for impacts to off-site land uses, in the event of an accidental release.

Sensitive Receptors

Sensitive receptors are facilities where sensitive receptor population groups (children, elderly, acutely ill and chronically ill) are likely to be located. These land uses include residences, schools, playgrounds, childcare centers, retirement homes, convalescent homes, hospitals, and medical clinics. The closest such receptors in the project area are residences located approximately one mile northeast of the TCRDF.

Thresholds of Significance

As stated in the EIR, a hazardous materials impact is considered significant if the project will:

- *create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials; or*
- *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; or*
- *emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school; or*
- *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 create significant hazard to the public or the environment; or*
- *impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.*

The following discussions and conclusions are taken from the 2007 EIR:

Landfill closure operations would not result in hazards to the public or the environment through the routine transport, use or disposal of hazardous materials. (Less Than Significant Impact)

Conformance with relevant laws and regulations would minimize the likelihood that hazardous materials releases from industrial development allowed by the General Plan and zoning would

create a significant impact on the environment or wildlife present in the nearby Don Edwards San Francisco Bay National Wildlife Refuge. (Less Than Significant Impact)

Mitigation and Avoidance Measures

No additional mitigation and avoidance measures are required.

Conclusions Regarding Hazards and Hazardous Materials Impacts

Implementation of the proposed landfill closure, including on-site borrow activities, would not result in substantial hazardous materials impacts. (Less Than Significant Impact)

Conformance with relevant laws and regulations would minimize the likelihood that hazardous materials releases from industrial development allowed by the General Plan and zoning would create a significant impact on the environment of wildlife present in the nearby Don Edwards San Francisco Bay National Wildlife Refuge. (Less Than Significant Impact)

Hydrology and Water Quality — Less than Significant Impact

Refer to Section 4.4 of **Appendix E** for additional discussion of this topic.

Comparison of Project to Approved 2007 EIR Activities

The 2007 EIR notes that the General Plan Amendment and zoning would allow future on-site improvements, such as additional paving, that could increase impervious surfaces; and that any future improvements will be required to conform with the City's standard flooding and storm water drainage requirements to avoid substantial drainage impacts. As such, the Project would be expected to have significantly less impact than the approved 2007 EIR activities given its limited size and the fact that paving outside of foundation areas is not planned. Therefore, the Project would have a Less Than Significant Impact.

Thresholds of Significance

As stated in the EIR, a drainage and water quality impact is considered significant if the project will:

- *Substantially degrade or deplete groundwater resources or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level; or*
- *Substantially alter the existing drainage pattern of the site or area, including through the alteration of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; or*
- *Substantially alter the existing drainage pattern of the site or area, including through the alteration of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site; or*

- *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or*
- *Provide substantial additional sources of polluted runoff or otherwise substantially degrade surface or groundwater quality; or*
- *Place within a 100-year flood hazard area structures which would impede or redirect flood flows; or*
- *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; or*
- *Expose people or structures to inundation by seiche, tsunami, or mudflow.*

The following mitigation measures, taken from the 2007 EIR (see **Appendix E**) would be continued with the implementation of this Project.

The lower areas of the site are within the 100-year flood zone. The proposed continued use of a portion of the site as a Corporation Yard and concrete recycling facility would not result in substantial new flooding impacts to people or property. (Less Than Significant Impact)

Continued operation of the Corporation Yard and concrete recycling facility, using the existing site plans, would not result [in] an increase in runoff from the site. The proposed General Plan Amendment and zoning would allow future on-site improvements, such as additional paving, that could increase impervious surfaces. Any future improvements will be required to conform with standard flooding and storm water drainage requirements in the City of Fremont Municipal Code to avoid substantial drainage impacts. (Less Than Significant Impact)

Continued operation of the Corporation Yard and concrete recycling facility, under their existing configurations and level of activity, would not result in an increase in nonpoint source pollution in storm water runoff. Implementation of standard measures, including preparation and implementation of a SWPPP, would avoid water quality impacts resulting from implementation of the proposed General Plan Amendment and Use Permits. (Less Than Significant Impact)

The EIR notes that even though impacts would be less than significant, mitigation measures would be implemented. The following mitigation measures, taken from the 2007 EIR (see **Appendix E**) are also proposed for this Project. The mitigation measures in the 2007 EIR were related to closure and post-closure activities at TCRDF and have not been implemented as of February 2012; however, closure activities are expected to start by the second quarter of 2012 and before the construction of the proposed Project.

Mitigation Measures

The Mitigation measures included in the 2007 EIR include the following mitigation measures. As noted, these mitigation measures were not required due to expected impacts.

PMM H/WQ-4.1: *Future modifications to the Corporation Yard and concrete recycling facility will be required to conform with the Flood Damage Prevention requirements outlined in Title VIII, Chapter 8 of the Fremont Municipal Code. This chapter includes methods and*

provisions for restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion of flood heights or velocities; requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel floodwaters; controlling filling, grading, dredging and other development which may increase flood damage; and preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas.

Stormwater controls, calculations and sizing of stormwater facilities will also be required to conform with Title VIII, Chapter 11 of the Fremont Municipal Code design requirements.

***PMM H/WQ-7.1**: Future modifications to the Corporation Yard and concrete recycling facility will be required to conform with the requirements and guidelines of the Alameda Countywide Clean Water Program and the City of Fremont to reduce nonpoint pollution in storm water runoff.*

Fremont Grading and Erosion and Sediment Control Requirements

Grading and Erosion and Sediment Control requirements are outlined in Title VIII, Chapter 4 of the Fremont Municipal Code. This chapter sets forth minimum standards and requirements relating to land grading, excavations and fills and establishes procedures by which these standards and requirements may be enforced.

One of the purposes of this chapter is to protect water quality by avoiding pollution of watercourses with nutrients, sediments or other earthen materials generated on or caused by surface runoff on or across private property. The City's grading, erosion and sediment control requirements are implemented during site development or redevelopment. These would be requirements would be applied through grading permit(s) for soil borrow and any site redevelopment.

Fremont Stormwater Management and Discharge Control Requirements

Title VIII, Chapter 11 of the Fremont Municipal Code calls for reducing pollutants in storm water discharges to the maximum extent practicable. The intent of the chapter is to protect and enhance the water quality of our watercourses, water bodies, and wetlands in a manner pursuant to and consistent with the Federal Clean Water Act. Under this chapter, projects must also meet the requirements of the Alameda County Flood Control and Water Conservation District (ACFCWCD) for discharge to channels that are their responsibility.

This chapter requires that development projects include Best Management Practices in order to reduce water quality impacts to stormwater runoff from the site. The City of Fremont requires that stormwater treatment details and calculations of increased impervious surfaces be submitted for review and approval prior to issuance of development permits. An Operations and Maintenance Agreement for Stormwater Treatment Measures is also required for projects effecting 10,000 square feet or more.

NPDES Permit Programs

The NPDES storm water permits that would apply to the area of the General Plan amendment are the municipal permit for Alameda County and the general construction activities permit.

The NPDES permit for Alameda County (including City of Fremont) was updated and reissued February 19, 2003. Under the provisions of the Municipal Storm Water NPDES Permit, the City is required to take steps within their area of authority to reduce or eliminate pollutants in storm water to the maximum extent practicable. As described above, the City of Fremont has incorporated requirements of the permit in their Municipal Code and implements the NPDES permit for Alameda County during development review and approval processes.

NPDES General Permits for stormwater discharge associated with construction require the utilization of a full range of structural and nonstructural control measures and management practices designed to reduce potential contamination of runoff during construction. Applicants for construction projects over one acre in size would file a Notice of Intent (NOI) and Stormwater Pollution Prevention Plan (SWPPP) with the Regional Water Quality Control Board prior to commencing construction. The SWPPP must address mitigation for both the construction and post-construction periods. The SWPPP would include erosion and sediment control measures, waste disposal controls, post construction sediment and erosion control measures and maintenance responsibilities and non-stormwater management controls.

MM H/WQ 5.1: *The project will be required to conform to the requirements and guidelines of the Alameda Countywide Clean Water Program and the City of Fremont to reduce nonpoint pollution in storm water runoff. The project also proposes to comply with nonpoint pollution control measures during construction as required under the NPDES General Construction Permit for activities in the borrow area.*

Erosion and Sedimentation Control*. Contractors shall implement erosion control measures on site to retain all debris, dirt and pollutants, and prevent said pollutants from flowing into the on-site storm water collection system. Erosion control plans and/or SWPPPs shall be submitted for review and approval by the Community Development Department prior to issuance of any grading permits.*

MM H/WQ 7.1: *Dewatering of the borrow area is not proposed by the project. The following measure is included in the project to avoid possible impacts to groundwater quality during excavation of the borrow area:*

- *Dewatering of excavations within the 88-acre borrow area as a part of landfill closure activities is prohibited.*

The following Conclusions, taken from the 2007 EIR (see **Appendix E**) are applicable to this Project.

Conclusions Regarding Hydrology and Water Quality Impacts

The proposed landfill closure would not result in significant drainage or water quality impacts to surface waters or groundwater. (Less Than Significant Impacts)

Implementation of programmed mitigation measures would reduce or avoid possible hydrology and water impacts associated with the proposed General Plan Amendment. (Less Than Significant Impacts)

Land Use and Planning Less Than Significant Impact

Refer to Section 4.1 of **Appendix E** for additional discussion of this topic.

Comparison of Project to Approved 2007 EIR Activities

The City of Fremont has determined that the Project is consistent with the TCRDF CUP (see Appendix A). The land use designation of the parcel on which the Project will be located is *Planned District (P-2005-262)*, and is approved for Light Industrial uses. The Project will also be located adjacent to the existing landfill flare, and is similar activity (combusting landfill gas). Therefore, the 2007 EIR finding of Less Than Significant Impact is applicable to the Project.

Thresholds of Significance

As stated in the EIR, a land use impact is considered significant if the project will:

- *Physically divide an established community; or*
- *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, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or*
- *Conflict with any applicable habitat conservation plan or natural community conservation plan.*

The following discussion and conclusions are taken from the 2007 EIR:

The proposed project, closure of an existing landfill and a General Plan amendment to allow continued use of a Corporation yard and concrete recycling facility at the TRCDF, would not physically divide an established community. The City of Fremont does not currently have a habitat conservation plan or natural community conservation plan in place; therefore, the project site is not included in a habitat conservation plan or natural community conservation plan. The following discussion addresses potential land use conflicts.

The proposed project will not substantially change the character of the project site. Overall, the intensity of activities on the landfill portion of the site will decrease once waste hauling for disposal ceases. The use of heavy equipment, such as front end loaders and large trucks, to install the landfill cover will continue for approximately four years, during the months of May through September. These activities would generate dust and noise; however, given the separation distance between the landfill and sensitive receptors and existing businesses, this would not result in land use compatibility impact. After placement of the landfill cover, activities will be limited to maintenance and monitoring activities, such as filling settlement areas, collecting landfill gas and leachate samples, and maintaining the landfill gas flare. Concrete and asphalt recycling activities would continue and trucks and other equipment would continue to access the Corporation Yard for parking and equipment maintenance. Currently, concrete crushing at the concrete recycling facility is done with a portable crusher several times per month.

The proposed project will not result in significant adverse land use impacts as a result of substantial increases in dust or noise levels. (Less Than Significant Impact)

The proposed landfill closure and continued use of the site as a Corporation Yard and concrete recycling facility will not conflict with the planned Bay Trail shown in the City of Fremont's General Plan. (Less Than Significant Impact)

The proposed landfill closure and continued use of the site as a Corporation Yard and concrete recycling facility will not conflict with possible future low density residential uses north of the site in the City of Newark. (Less Than Significant Impact)

Mitigation and Avoidance Measures

No mitigation or avoidance measures are required.

Conclusions Regarding Land Use Impacts

The proposed closure of the landfill and a General Plan amendment to allow continued use of the Corporation Yard and concrete recycling facilities on a portion of the TCRDF site would not result in substantial land use impacts.
(Less Than Significant Impact)

Mineral Resources No Impact

The 2007 EIR did not address mineral resource impacts; however, the Project would not disturb any off-site ground surfaces, and would have minimal, below-grade impact during grading at the Project location, which is on an already disturbed surface. As such, the Project would have No Impact on potential mineral resources.

Noise — Less Than Significant Impact

Refer to Section 4.8 of **Appendix E** for additional discussion of this topic.

Comparison of Project to Approved 2007 EIR Activities

The City has determined that the Project is consistent with the TCRDF CUP (see **Appendix A**). The Project is located adjacent to various approved site activities, including truck traffic, which generate noise found to be Less Than Significant. WMAC has estimated the maximum noise level from operation of the Project engines at the landfill property boundary (approximately 1,000 feet from the Project) to be approximately 40 decibels, which is described in Table 4.8-1 of **Appendix E** as comparable to a quiet office environment. Furthermore, the nearest receptor (Industrial site) is located an additional 1,300 feet from the landfill property boundary; and the nearest residential receptor is located approximately 1.4 mile from the Project (see Figure 2, attached). As such, the noise impact from the Project is expected to be negligible at the nearest receptors and would be considered Less Than Significant.

Thresholds of Significance

As stated in the EIR, a noise impact is considered significant if the project will result in:

- *exposure of persons to or generation of noise levels in excess of standard established in the local general plan or noise ordinance, or applicable standards of other agencies; or*
- *exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels; or*
- *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or*
- *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project; or*
- *For a project located within an airport land use plan or, where such a plan as not been adopted, within two miles of a public airport, will the project expose people residing or working in the project area to excessive noise levels.*

An environmental noise study was prepared by Illingworth & Rodkin, Inc. as part of the 2007 EIR, and is included in the EIR as an appendix; however, it is not provided in the Section 4 of the EIR, which is included as **Appendix E** in this IS. The following excerpts are taken from the 2007 EIR:

The Fremont Municipal Code includes noise performance standards for activities within the City in Title VIII (Planning and Zoning), Chapter 2 (Zoning), Article 19 (Performance Standards), Section 8-21904. Under these standards, the maximum normally acceptable sound level generated by any user at the property line nearest the source shall not exceed an Ldin level of 70 dB when adjacent uses are industrial or wholesale users.

Existing Noise Levels on Auto Mall Parkway

Noise levels were measured at the nearest light industrial facility located east of the project site on Auto Mall Parkway (refer to Figure 4.1-1). During a mid-morning measurement, noise levels

ranged from 51 dBA to 76 dBA. The most significant source of noise affecting the environment at this nearest receptor was vehicular traffic on Auto Mall Parkway. Thirteen heavy trucks passed by the noise measurement location during a 10-minute period. Noise levels reached 75-76 dBA. The trucks included dump trucks, and smaller trucks, such as pickups with trailers. The average noise level (Leq) during the measurement was 65 dBA, 60 feet from the roadway centerline. Noise resulting from ongoing landfill operations did not contribute measurably to the noise environment at the noise measurement location, approximately 1/3 mile from the TCRCF.

Continued operation of the Corporation Yard and concrete recycling facility as they are proposed would not result in increased ambient noise levels or impacts to sensitive receptors. (Less than Significant Impact)

Mitigation and Avoidance Measures

No mitigation or avoidance measures are required.

Conclusions Regarding Noise Impacts

The proposed closure of the landfill and a General Plan amendment and zoning to allow industrial development, plus approval of a conditional use permit to allow continued use of the Corporation yard and concrete recycling facilities on a portion of the TCRDF site would not result in significant adverse noise impacts compared to existing conditions. (Less Than Significant Impact)

Population Housing No Impact

This category of potential impacts was not addressed in the 2007 EIR; however, as the number of employees associated with the Project will be minimal, the Project is expected to have No Impact on available housing in the region.

Public Facilities and Services No Impact

Refer to Section 4.12 of **Appendix E** for additional discussion of this topic.

Comparison of Project to Approved 2007 EIR Activities

The 2007 EIR conclusions specifically cite a General Plan amendment that allows industrial development, such as the Project. As such, the 2007 finding of No Impact is also applicable to the Project.

Thresholds of Significance

As stated in the EIR, a public facilities and services impact is considered significant if the project will result in:

- *Substantial adverse physical impacts associated with provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, need for new or physically altered governmental 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.

Per 2007 EIR, *No mitigation or avoidance measures are required.*

Conclusions Regarding Public Services Impacts (from 2007 EIR)

The proposed closure of the landfill and a General Plan amendment to allow industrial development, plus approval of a conditional use permit to allow continued use of the Corporation Yard and concrete recycling facilities on a portion of the TCRDF site would not result in an increased demand or substantial impacts to public facilities or services. (No Impact)

Recreation — No Impact

Refer to **Section 4.13** of **Appendix E** for additional discussion of this topic.

Comparison of Project to Approved 2007 EIR Activities

The Project will have no off-site impacts, and would have significantly less impact than the approved 2007 EIR activities; therefore, the 2007 finding of No Impact is also applicable to the Project.

Thresholds of Significance

As stated in the EIR, a recreation impact is considered significant if the project will result in:

- *An increase in 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.*

The following discussion is taken from the 2007 EIR (see **Appendix E**), and is applicable to this Project as well as the activities described in the EIR:

The proposed project would not generate population growth in the project area, either directly through the construction of housing, or indirectly through the creation of a substantial number of new jobs. The proposed project, therefore, would not result in an increased need for recreation facilities or an increase in the use of existing parks.

The public does not currently have access to the Don Edwards San Francisco Bay National Wildlife Refuge from the project site or adjacent properties, and the closest hiking trails are located near the Refuge Visitor Center in Newark, over five miles to the northwest. Public access is only allowed by boat during the waterfowl hunting season. The proposed landfill closure and continued use of the Corporation Yard and concrete recycling facility would not interfere with seasonal use of Salt Evaporation Ponds M5 and M6 for waterfowl hunting or otherwise impact recreational access to the Don Edwards San Francisco Bay Wildlife Refuge.

Landfill closure activities and continued operation of a Corporation Yard and concrete recycling facility would not result in substantial impacts to neighborhood or regional parks or recreational access to the Don Edwards San Francisco Bay National Wildlife Refuge (Less Than Significant Impact)

Mitigation and Avoidance Measures

No mitigation or avoidance measures are required.

Conclusions Regarding Recreation Impacts

The proposed closure of the landfill and a General Plan amendment and zoning to allow industrial development, plus approval of a conditional use permit to allow continued use of the Corporation Yard and concrete recycling facilities on a portion of the TCRDF site would not result in recreation impacts. (No Impact)

Transportation and Traffic — Less Than Significant Impact

Refer to **Section 4.6** of **Appendix E** for additional discussion of this topic.

Comparison of Project to Approved 2007 EIR Activities

TCRDF is currently approved for a maximum of 1,075 one-way trips per day; primarily haul truck trips, as reflected in its Solid Wasted Facility Permit (Facility No. 01-AA-0008) issued May 22, 2007. Because the site no longer accepts waste for disposal, site traffic is consistently well below its historical maximum. A review of Site records over the past 8 months shows that daily one-way trips never exceeded 400 trips and exceeded 300 trips on only 6 occasions. The Project will not require any additional daily truck trips associated with ongoing operation. Project traffic will consist of up to 5 employee vehicles per day. Installation of the electrical interconnect, as discussed previously in the Project Description, will require a maximum of 5 utility trucks per day over a 2-week period. This additional Project traffic would represent a negligible increase compared to current traffic levels and an even less significant increase compared to approved maximum traffic levels, which were determined in the 2007 EIR to have a less than significant Impact; therefore, the Project would have a Less Than Significant Impact on Transportation and Traffic. Note that air quality impacts associated with Project construction emissions have been estimated and are discussed in the Air Quality Impacts section of this IS.

Thresholds of Significance

As stated in the EIR, the proposed Project would result in a significant impact if the addition of Project-related traffic would:

- *cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system; or*

- *exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways; or*
- *substantially increase hazards due to a design feature; or*
- *result in inadequate emergency access; or*
- *conflict with adopted policies, plans, or programs supporting alternative transportation.*

The following discussion and conclusions are taken from the 2007 EIR:

Traffic to and from the site is not anticipated to increase during the post-closure period.

(Less Than Significant Impact)

The proposed landfill closure and continued use of the site as a Corporation Yard and concrete recycling facility will not conflict with the planned Bay Trail, a pedestrian and bicycle facility shown in the City of Fremont's General Plan. (Less Than Significant Impact)

Mitigation and Avoidance Measures

No mitigation or avoidance measures are required.

Conclusions Regarding Transportation Impacts

The proposed closure of the landfill and a General Plan amendment to allow continued use of the Corporation yard and concrete recycling facilities on a portion of the TCRDF site would not result in transportation impacts. (Less Than Significant Impact)

Utilities/Service Systems — Less Than Significant Impact

Refer to **Section 4.11** of **Appendix E** for additional discussion of this topic.

Comparison of Project to Approved 2007 EIR Activities

The nature of the Project is such that it will place no significant additional burdens on sewer, water, or other utility services; and impacts would be comparable to or less than those from activities covered under the 2007 EIR. Therefore, the 2007 finding of Less Than Significant Impact is also applicable to the Project.

Existing Setting (from 2007 EIR)

Water used on the TCRDF site is stored in several storage tanks. Potable water is trucked in and stored in a 13,000 gallon storage tank. Potable water is provided in the permanent restrooms located in the site's administrative building. Bottled drinking water is also supplied in the administrative building.

Non-potable water is obtained from a well located near the site entrance. There are four on-site tanks, ranging in size from 5,000 gallon to 11,000 gallons, which store water for non-potable uses, including firefighting.

Thresholds of Significance

As stated in the EIR, a utility impact is considered significant if the project will:

- *require or result in the construction of a new water supply, storm water drainage, or wastewater treatment facility or expansion of existing facilities, the construction of which could cause significant environmental effects; or*
- *results in a determination by the wastewater treatment provider that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments; or*
- *need new or expanded entitlements for water supplies; or*
- *be served by a landfill with insufficient permitted capacity.*
- *comply with federal, state and local statutes and regulations related to solid waste.*

The following discussions and conclusions are taken from the 2007 EIR:

Landfill closure activities and continued operation of a Corporation Yard and concrete recycling facility would not result in an increased water demand or require the construction of new water supply infrastructure. (Less Than Significant Impact)

Landfill closure activities and continued operation of a Corporation Yard and concrete recycling facility would not result in substantial increases in waste water discharges or require the construction of new waste water infrastructure. (Less Than Significant Impact)
Waste generated at the site would be disposed of in conformance with federal, state, and local statutes and regulations. The Fremont area is served by a landfill with sufficient permitted capacity. (Less Than Significant Impact)

Mitigation and Avoidance Measures

No mitigation or avoidance measures required.

Conclusions Regarding Utilities and Service Systems

The proposed closure of the landfill and continued use of the Corporation Yard and concrete facilities on a portion of TCRDF site would not have a significant impact on utilities and service systems. (Less Than Significant Impact)

Energy No Impact

Refer to **Section 4.14** of **Appendix E** for additional discussion of this topic.

Comparison of Project to approved 2007 EIR activities

The 2007 EIR concluded that there would be a less than significant impact. The Project will produce renewable electricity and will add electricity to the grid. As such, it will have a positive

effect on local and regional energy resources. Therefore, it would be considered to have no negative impact.

Existing Setting (from 2007 EIR)

In the City of Fremont, electricity and natural gas are supplied by Pacific Gas & Electric Company (PG&E). This project site currently contains a 115-acre landfill, resource recovery operations, on-site storage, and an approximately 14 acre Corporation Yard. High voltage electrical transmission towers are located in the northeastern diked area and there is an easement for the electrical transmission lines that crosses this area. Existing energy use primarily consists of energy for landfill and resource recovery operation vehicles and trucks traveling to and from the site.

Thresholds of Significance

As stated in the 2007 EIR, an energy impact is considered significant if the project will:

- *use fuel or energy in a wasteful manner; or*
- *Result in a substantial increase in demand upon energy resources in relation to projected supplies.*

The following conclusions, taken from the 2007 EIR, are applicable to this Project.

Mitigation and Avoidance Measures

No mitigation or avoidance measures are required.

Conclusions Regarding Energy Impacts

The proposed closure of the landfill and a General Plan amendment and zoning to allow industrial development, plus approval of a conditional use permit to allow continued use of the Corporation Yard and concrete recycling facilities on a portion of the TCRDF site would not result in a substantial increase in energy consumption or the wasteful use of energy. (Less Than Significant Impact)

Mandatory Findings of Significance

The report preparers and consulted BAAQMD staff have determined that the proposed project would not have a significant effect on the environment after mitigation. The requirements of CEQA shall be satisfied by the preparation of this IS and adoption of a Mitigated Negative Declaration. This conclusion is based on the following findings:

- The Project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels or threaten to eliminate a plant or animal community. The Project would not reduce the number or restrict the range of a rare or endangered plant or animal. The Project would not eliminate important examples of the

major periods of California history or pre-history if mitigation measures adopted as part of a 2007 EIR, which evaluated the impacts of landfill closure activities, are implemented.

- The Project does not 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).

- The Project would not have environmental effects which would cause substantial adverse effects on human beings because potential impacts would be reduced during the BAAQMD permitting process through the acquisition of emission offsets, as well as due to the large distances between the location of the Project and potential receptors.

Mitigation Measures

Project emissions of NO_x and POC would trigger the BAAQMD offset requirements and therefore would require offsets. After offsets, the total Project emissions would be less than the significance threshold for all pollutants. Modeling demonstrates that there would be no significant local impacts. Therefore, no mitigation measures beyond the offsets that would be required to comply with BAAQMD permitting requirements are needed to reduce air quality impacts to below significant levels. Please see the Air Quality Impact Discussion for additional details.

The 2007 EIR included some mitigation measures to reduce impacts. Those mitigation measures in the 2007 EIR are included in this IS where necessary to reduce impacts below significant levels and include the following:

Biological Resources

MM BIO-5.1: <u>Exclusion of California Tiger Salamanders from Project Site.</u> *To minimize possible impacts to individual tiger salamanders from borrow activities, a barrier to tiger salamander dispersal shall be placed along the eastern boundary of the site, from the existing entrance road southeast to the southeastern limit of the borrow area. This barrier should be designed to prevent salamanders dispersing from breeding sites east of the railroad tracks from entering the project area. This barrier shall be designed by a qualified herpetologist, and checked and maintained regularly to ensure that gaps that could allow salamanders to enter the project site do not occur. Because the borrow activities are proposed to be phased, such a barrier shall also be placed between borrow areas and portions of the Resource Recovery Area not being used for borrow activities, to prevent any salamanders from entering the active borrow area.*

MM BIO-5.2: <u>Salvage of Individual Tiger Salamanders During Project Activities.</u> *While Mitigation Measure BIO-5.2 would minimize the probability of salamanders entering the site, any salamanders already present in the borrow area shall be salvaged and translocated off site to the extent practicable. Although detecting every tiger salamander on a site is not feasible due to this species' secretive, subterranean habits, a qualified herpetologist shall be present during removal of debris and initial clearing and grubbing on the Resource Recovery Area prior to excavation at a particular borrow area. The herpetologist would look for individual tiger salamanders that may be taking refuge under debris or in the few mammal burrows present on the site. Any individuals detected would be captured and translocated to a safe location outside the project area; this relocation site shall be approved by the USFWS prior to translocation.*

MM BIO-5.3: <u>On-site Construction Crew Education Program for Tiger Salamander.</u> *A worker education program shall take place before the commencement of borrow excavation activities. A USFWS-approved biologist shall explain to construction workers how best to avoid impacts to California tiger salamanders. The approved biologist will conduct a training session that would be scheduled as a mandatory informational field meeting for contractors and all construction personnel. The field meeting will include topics on species identification, life history, descriptions, and habitat requirements during various life stages.*

Handouts, illustrations, photographs, and project mapping showing areas where minimization and avoidance measures are being implemented will be included as part of this education program. The program will increase the awareness of the contractors and construction workers about existing federal and state laws regarding endangered species as well as increase their compliance with conditions and requirements of resource agencies.

Prior to the start of work each day, dedicated construction personnel will inspect pits that were left open overnight for tiger salamanders. If a tiger salamander is encountered during project construction, the following protocol will be implemented:

- *All work that could result in direct injury, disturbance, or harassment of the individual animal must immediately cease;*
- *The foreman will be immediately notified;*
- *The foreman will immediately notify a qualified biologist, who in turn will immediately notify USFWS and CDFG; and*
- *If approved by the USFWS and CDFG, the qualified biologist will remove the individual to a safe location nearby.*

MM BIO 7.1: <u>Pre-construction Surveys for Burrowing Owl.</u> *Pre-construction surveys for Burrowing Owls shall be conducted in potential habitat (inactive slopes of the landfill and the borrow area) in conformance with CDFG protocols, no more than 30 days prior to the start of any ground-disturbing activity such as clearing and grubbing, excavation, or grading. If no Burrowing Owls are located during these surveys, no additional action would be warranted. However, if Burrowing Owls are located on or immediately adjacent to the site the following mitigation measures will be implemented.*

- *Buffer Zones. If Burrowing Owls are present during the nonbreeding season (generally September 1 to January 31), a 150-foot buffer zone, within which no new project-related activity will be permissible, shall be maintained around the occupied burrow(s). During the breeding season (generally February 1 to August 31), a 250-foot buffer, within which no new project-related activity will be permissible, will be maintained between project activities and occupied burrows. Owls present at burrows on the site after February 1 will be assumed to be nesting on or adjacent to the site unless evidence indicates otherwise. This protected area will remain in effect until August 31, or at the discretion of the CDFG and based upon monitoring evidence, until the young owls are foraging independently.*
- *If ground-disturbing activities will directly impact occupied burrows, eviction outside the nesting season may be permitted pending evaluation of eviction plans by, and receipt of formal written approval of the relocation from the CDFG. No Burrowing Owls shall be evicted from burrows during the nesting season (February 1 through August 31) unless evidence indicates that nesting is not actively occurring (e.g., because the owls have not yet begun nesting early in the season, or because young have already fledged late in the season). A report on the results of the pre-construction survey(s) for Burrowing Owls, including any required buffer zones or protection measures, shall be submitted to the Planning Director prior to the start of grading each year and/or at the start of a new phase of grading or landfill closure.*

MM BIO-8.1: *Prior to ground disturbing activities in the borrow area, suitable habitat for breeding by Alameda Song Sparrow or Saltmarsh Common Yellowthroats (e.g., dense wetland and ruderal vegetation) will be identified and mapped by a qualified biologist. To the extent feasible, vegetation that could be used for breeding by these species within the area to be graded during the next year will be removed during the non-breeding season (mid-August to late February). In addition, all vegetation that could serve as suitable nesting habitat for these species, and that is located within 50 feet of areas of disturbance, shall be removed to prevent the project from disturbing active nests. During the construction period, the project site and adjacent areas shall be maintained so that no vegetation suitable for nesting by Song Sparrows and Common Yellowthroats is allowed to develop. If vegetation is removed during the non-breeding season prior to construction, no impacts to nesting would occur.*

A report documenting the removal of vegetation within the active borrow area shall be submitted to the Planning Director prior to the start of grading each year.

MM BIO 8.2 *In the event suitable vegetation has not been removed and project activities are to occur during the breeding season in or near potential nesting habitat for Alameda Song Sparrow or Saltmarsh Common Yellowthroats, a qualified ornithologist shall conduct pre-disturbance surveys no more than 15 days prior to the initiation of disturbance in any given area. If Song Sparrow or Common Yellowthroat nests are found to be present within or near (i.e., within 50 feet of) the impact areas during the breeding season, a buffer free from any new project-related disturbance shall be established around any active nest, the width of this buffer being determined by an experienced ornithologist in consultation with CDFG. This buffer shall be maintained until nesting has been completed.*

A report on the results of any pre-construction surveys for Alameda Song Sparrow and Saltmarsh Common Yellowthroats, including any required buffer zones or protection measures, shall be submitted to the Planning Director prior to the start of grading each year.

MM BIO 10.1: ***Exclusion of Individual Salt Marsh Harvest Mice and Salt Marsh Wandering Shrews from Project Site.*** *A barrier to exclude salt marsh harvest mice and salt marsh wandering shrews from the project's impact areas shall be constructed under the guidance of a qualified biologist. The fence shall consist of a three-foot tall, tight cloth silt fence toed into the soil at least three inches deep and supported with stakes. Additionally, vegetation within the impact area and within ten feet of the barrier shall be removed by hand; such bare areas are unlikely to be crossed by salt marsh harvest mice and salt marsh wandering shrews and provide additional insurance against the dispersal of individuals into the project site. Alternatively (if the barrier of bare ground is not practicable), a three-foot-high smooth metal fence toed into the soil at least three inches shall be constructed instead. All fence construction and vegetation removal shall be conducted under the supervision of a qualified biological monitor who is permitted by the USFWS to move salt marsh harvest mice out of the construction area.*

MM BIO-10.2: ***Salvage of Individual Salt Marsh Harvest Mice and Salt Marsh Wandering Shrews During Project Activities.*** *While Mitigation Measure BIO-10.1 would minimize the probability of salt marsh harvest mice and salt marsh wandering shrews entering the site, any individuals already present in the impact areas should be salvaged and translocated off site to the extent practicable. Although detecting every individual on a site is not feasible due to these species' secretive habits, a qualified mammalogist shall be present during*

construction of the barrier fence, removal of vegetation, and initial clearing and grubbing within ten feet of the barrier fence. The mammalogist would look for individual salt marsh harvest mice and salt marsh wandering shrews that may be present within the project area. Any individuals detected would be captured and translocated to a safe location within the closest suitable, pickleweed-dominated habitat.

A report documenting the construction of the exclusionary fencing and translocation of any salt marsh harvest mice or salt marsh wandering shrews shall be submitted to the Planning Director prior to the start of grading of the borrow area each year.

MM BIO-10.3: <u>On-site Construction Crew Education Program for Salt Marsh Harvest Mice or Salt Marsh Wandering Shrews.</u> *A worker education program will take place before the start of borrow excavation each year. A USFWS approved biologist will explain to construction workers how best to avoid impacts to salt marsh harvest mice and salt marsh wandering shrews. The approved biologist will conduct a training session that would be scheduled as a mandatory informational field meeting for contractors and all construction personnel. The field meeting will include topics on species identification, life history, descriptions, and habitat requirements. Handouts, illustrations, photographs, and project mapping showing areas where minimization and avoidance measures are being implemented will be included as part of this education program. The program will increase the awareness of the contractors and construction workers about existing federal and state laws regarding special-status species as well as increase their compliance with conditions and requirements of resource agencies.*

Cultural Resources

PMM CUL-2.1: *The California Health and Safety Code Section 7050.5 outlines the requirements for handling human remains if found outside of a dedicated cemetery. The county coroner is required to contact the Native American Heritage Commission within 24 hours if the coroner recognizes the remains to be those of a Native American. Provisions for reburial will be made with the Most Likely Descendent (MLD) of the deceased Native American .*

PMM CUL-2.2: *Section 15064.5 of the CEQA Guidelines identifies steps that should be taken in the event Native American remains, historical resources or unique archaeological resources are accidentally discovered during construction. These steps include immediate evaluation of the find by a qualified archaeologist and implementation of avoidance measures or appropriate mitigation. For future projects that involve ground disturbance, the City of Fremont will include standard conditions that incorporate these measures outlined in the CEQA Guidelines.*

MM CUL 1.1: *In the event cultural materials are found during site grading or excavation in the borrow area, the following measures will be implemented:*

All construction within 50-feet of the find would be halted, the Director of Community Development would be notified, and a qualified archaeologist would examine the find and make recommendations regarding the significance of the find and the appropriate mitigation. Recommendations could include collection, recordation, and analysis of any significant cultural materials.

- *If human remains are discovered, the Alameda County Coroner shall be notified. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission, who shall identify the Most Likely Descendant (MLD) of the deceased Native American.*

- *If the Planning Director finds that the cultural resource find is not a significant resource, work shall resume only after the submittal of a preliminary report and after provisions for reburial and ongoing monitoring are accepted. Provisions for identifying descendants of a deceased Native American and for reburial shall follow the protocol set forth in the CEQA Guidelines. If the site is found to be a significant archaeological site, a mitigation program shall be prepared and submitted to the Director of the Community Development Department for consideration and approval, in conformance with the protocol set forth in Section 15064.5 of the CEQA Guidelines.*

Hydrology and Water Quality

PMM H/WQ-4.1: *Future modifications to the Corporation Yard and concrete recycling facility will be required to conform with the Flood Damage Prevention requirements outlined in Title VIII, Chapter 8 of the Fremont Municipal Code. This chapter includes methods and provisions for restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion of flood heights or velocities; requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel floodwaters; controlling filling, grading, dredging and other development which may increase flood damage; and preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas.*

Stormwater controls, calculations and sizing of stormwater facilities will also be required to conform with Title VIII, Chapter 11 of the Fremont Municipal Code design requirements.

PMM H/WQ-7.1*: Future modifications to the Corporation Yard and concrete recycling facility will be required to conform with the requirements and guidelines of the Alameda Countywide Clean Water Program and the City of Fremont to reduce nonpoint pollution in storm water runoff.*

Fremont Grading and Erosion and Sediment Control Requirements

Grading and Erosion and Sediment Control requirements are outlined in Title VIII, Chapter 4 of the Fremont Municipal Code. This chapter sets forth minimum standards and requirements relating to land grading, excavations and fills and establishes procedures by which these standards and requirements may be enforced.

One of the purposes of this chapter is to protect water quality by avoiding pollution of watercourses with nutrients, sediments or other earthen materials generated on or caused by surface runoff on or across private property. The City's grading, erosion and sediment control requirements are implemented during site development or redevelopment. These

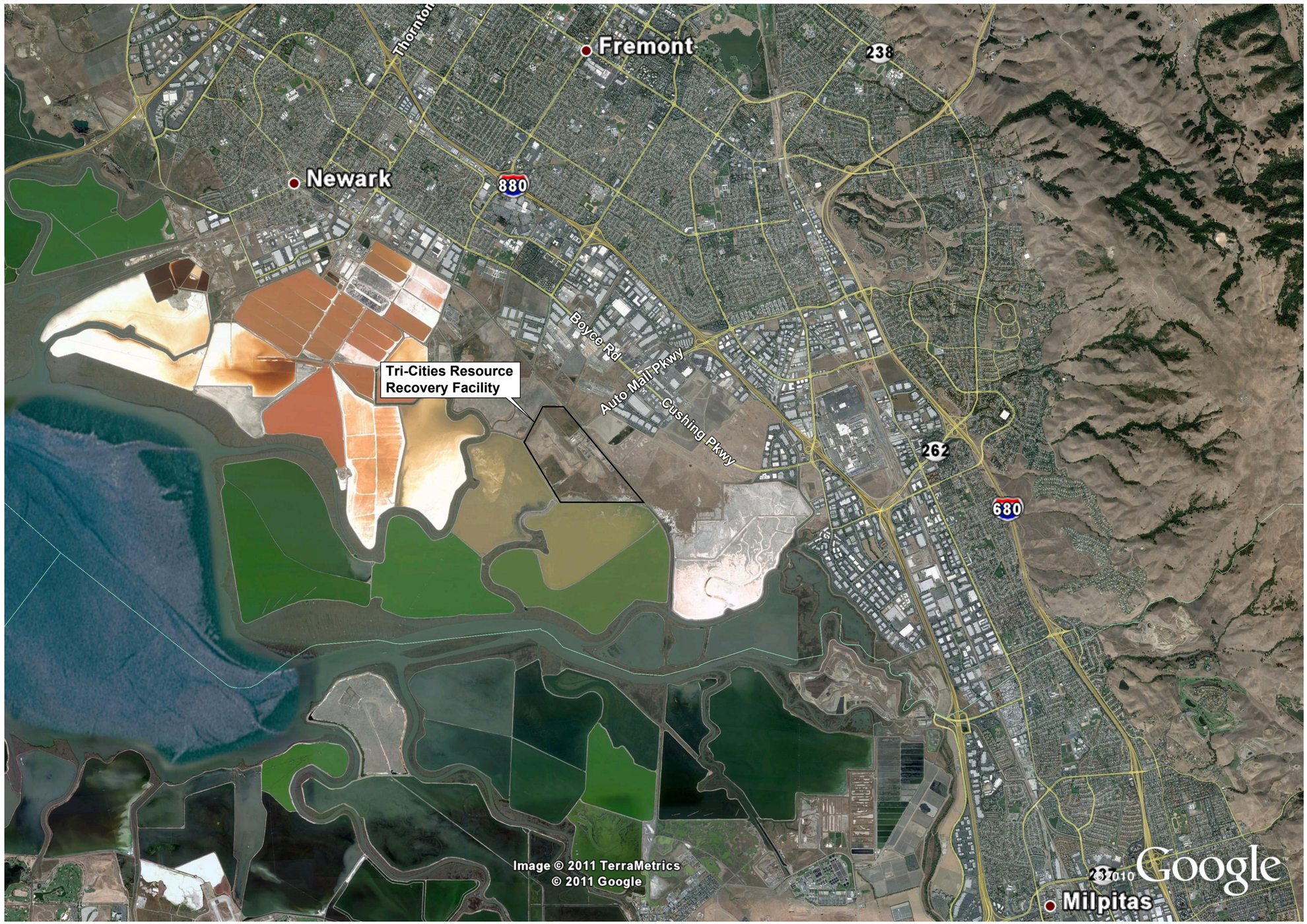
would be requirements would be applied through grading permit(s) for soil borrow and any site redevelopment.

Fremont Stormwater Management and Discharge Control Requirements

Title VIII, Chapter 11 of the Fremont Municipal Code calls for reducing pollutants in storm water discharges to the maximum extent practicable. The intent of the chapter is to protect and enhance the water quality of our watercourses, water bodies, and wetlands in a manner pursuant to and consistent with the Federal Clean Water Act. Under this chapter, projects must also meet the requirements of the Alameda County Flood Control and Water Conservation District (ACFCWCD) for discharge to channels that are their responsibility.

This chapter requires that development projects include Best Management Practices in order to reduce water quality impacts to stormwater runoff from the site. The City of Fremont requires that stormwater treatment details and calculations of increased impervious surfaces be submitted for review and approval prior to issuance of development permits. An Operations and Maintenance Agreement for Stormwater Treatment Measures is also required for projects effecting 10,000 square feet or more.

Figures



North

0 0.5 1

Approximate scale in miles

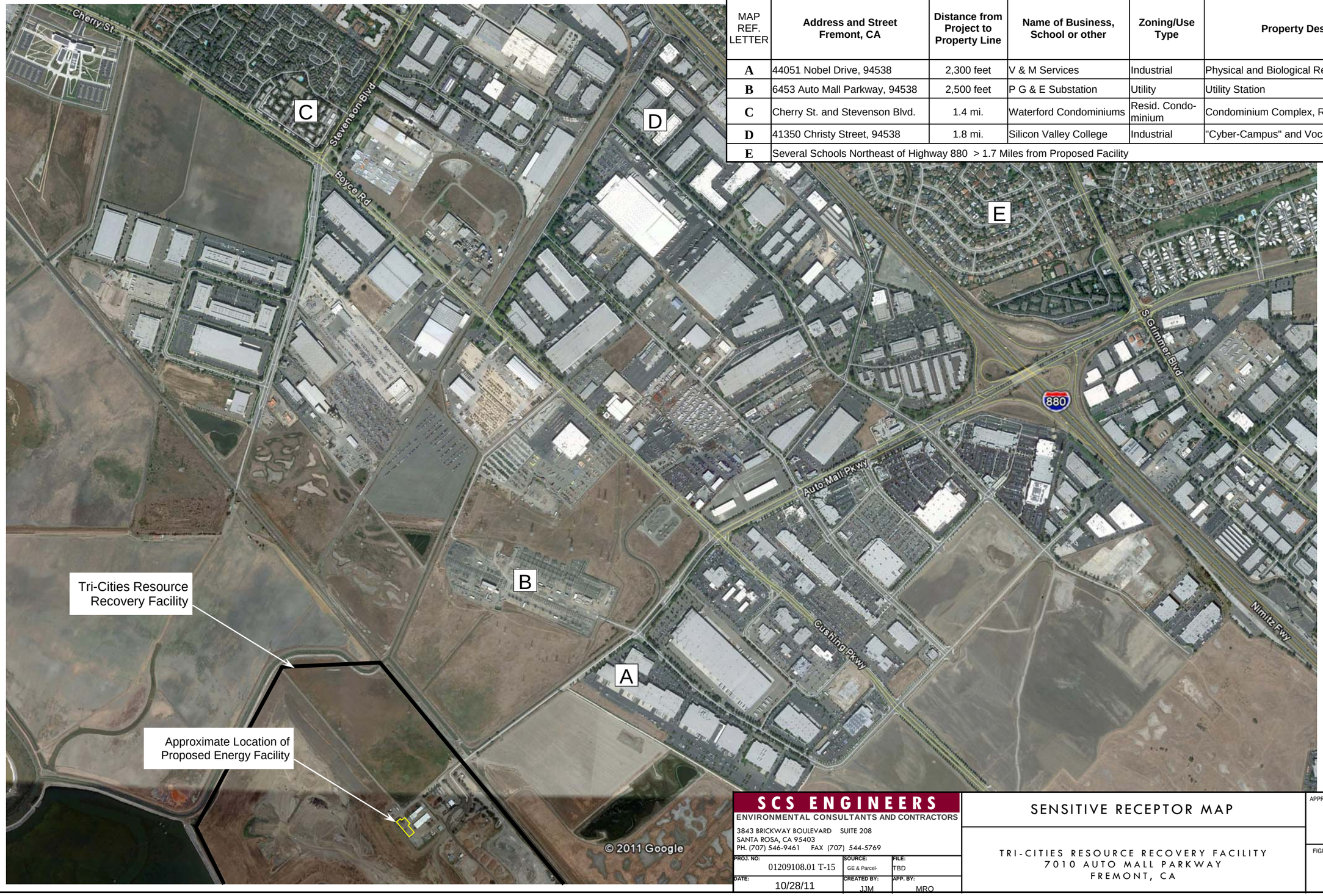
FIGURE 1
Site Vicinity Map
Tri-Cities Resource Recovery Facility
Fremont, California

CH2MHILL

Table 1 - Tri-Cities Resource Recovery Facility, 7010 Auto Mall Parkway, Fremont, CA 94538

Sensitive Receptor Radius Search

MAP REF. LETTER	Address and Street Fremont, CA	Distance from Project to Property Line	Name of Business, School or other	Zoning/Use Type	Property Description
A	44051 Nobel Drive, 94538	2,300 feet	V & M Services	Industrial	Physical and Biological Research
B	6453 Auto Mall Parkway, 94538	2,500 feet	P G & E Substation	Utility	Utility Station
C	Cherry St. and Stevenson Blvd.	1.4 mi.	Waterford Condominiums	Resid. Condo-minium	Condominium Complex, Residential
D	41350 Christy Street, 94538	1.8 mi.	Silicon Valley College	Industrial	"Cyber-Campus" and Vocational School
E	Several Schools Northeast of Highway 880 > 1.7 Miles from Proposed Facility				



N
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SCS ENGINEERS
ENVIRONMENTAL CONSULTANTS AND CONTRACTORS
3843 BRICKWAY BOULEVARD SUITE 208
SANTA ROSA, CA 95403
PH. (707) 546-9461 FAX (707) 544-5769

PROJ. NO:	SOURCE:	FILE:
01209108.01 T-15	GE & Parcel-	TBD
DATE:	**CREATED BY:**	**APP. BY:**
10/28/11	JJM	MRO

SENSITIVE RECEPTOR MAP

TRI-CITIES RESOURCE RECOVERY FACILITY
7010 AUTO MALL PARKWAY
FREMONT, CA

APPROX. SCALE
1" = 1,000'±

FIGURE:
2

Appendices

Appendix A

City of Fremont Determination Letter

(October 11, 2010)

CITY OF
Fremont

Community Development
39550 Liberty Street, P.O. Box 5006, Fremont, CA 94537-5006
www.fremont.gov

October 11, 2010

VIA EMAIL

Mr. Kenneth E. Lewis, P.E.
Director of Landfill Operations
California Bay Area
Waste Management
10840 Altamont Pass Road
Livermore, CA 94551

Dear Mr. Lewis,

The Community Development Department has reviewed the proposed methane recovery system facility design for the Tri-Cities Recycling and Disposal Facility. We understand that Waste Management proposes to use the existing gas recovery system, but divert gas flow (that would otherwise go to the landfill flare) to engines for power generation. The landfill flare would either operate at a much lower gas flow level or not at all, depending on how much gas the engines need and how much is available from the landfill. We recognize that the existing gas recovery system is operated and maintained in accordance with the landfill's air permits that were obtained following prior approval of the landfill project (prior CUPs and CEQA). Staff considers power generation to be an alternate destruction method for the landfill gas (e.g., a mitigation measure for the landfill project element of methane gas generation).

The City has determined this alternative method of landfill gas destruction is within with the scope of permitted uses and conditions allowed by the existing Conditional Use Permit PLN2000-00085. No amendment to the existing conditional use permit entitlement is required for the proposed change from a flare to power generation. The construction of the project will be subject to the building permit review process and must comply with the provisions of the California Building, Fire and Municipal Codes. If you have any additional questions please contact the staff planner, Steve Kowalski at 510-494-4532.

Regards,

Kelly Diekmann

Kelly Diekmann,
Senior Planner

Altamont Landfill
OCT 14 2010
Received

C: Kathy Cote, City of Fremont
Steve Kowalski, City of Fremont
Guy Petraborg, Waste Management
Tamiko Endow, BAAQMD

Appendix B

TCRDF Conditional Use Permit

Approved by Planning Commission on October 28, 1999

Exhibit A

PLN 2000-00085 (formerly U - 66 – 35)

TRI-CITIES RECYCLING AND DISPOSAL FACILITY (TCRDF)

PROPOSED CONDITIONS OCTOBER 1999

1. Conformance with Exhibit "A", Master Site Plan. The Master Site Plan is to be updated at least annually. As well as showing both the existing and planned final topography, it will also depict the current circulation pattern and existing structures.

2. Compliance with all terms and conditions which may be required by the San Francisco Bay Area Regional Water Control Board with the operation conducted so as not to pollute water in the area, and with all applicable regulations and required permits of the Alameda County Waste Management Board, United States Army Corps of Engineers, Bay Area Air Quality Management District, Bay Conservation Development Commission, Alameda County Flood Control and Water Conservation District, the Alameda County Mosquito Abatement District, Alameda County Department of Environmental Health, Alameda County Water District, or any other such public agency which may have legal jurisdiction over the use and operation of the sanitary landfill site.

3. The proposed use shall conform with all applicable requirements, policies, and ordinances of the City of Fremont Zoning Ordinance, Building Code, Street Improvement Ordinance, and other City departments and agencies.

4. No open fires or burning of any type shall be permitted, with the exception of flares associated with the methane gas collection system.

5. Permittee shall conduct at least daily pickup of litter along Auto Mall Parkway from Christy Street west to the landfill site and along the southern and western perimeters of the property, adjacent to the San Francisco Bay National Wildlife Refuge.

   Warning signs shall be posted along Auto Mall Parkway at the applicant's expense, indicating the penalties for littering.

6. A current detailed operations and rehabilitation plan shall be provided to the City. In the event that changes are made to the current operations and rehabilitation plan, these documents must be updated accordingly. The plan shall contain:

   a. A filling and rehabilitation program and schedule that provides for the substantial completion of filling and rehabilitation (including landscaping) of the westerly and southerly slopes of the landfill area, such as that the Wildlife Refuge is shielded from the noise and sight generated by the landfill operation;
   b. A plan and schedule for protection of the grassland, ruderal and wetland areas located in the southwesterly portion of the property;
   c. Filling and rehabilitation program for the remainder of the fill area;
   d. A slope stability study that analyzes the project's liquefaction, subsidence, uneven settlement and mudwave potential and make recommendations to reduce those potentials;

e. A preliminary landscaping plan and schedule that utilizes native drought-resistant plant materials and provide for planting nonactive fill areas with native grasses and ains to minimize wind erosion and air pollution.

7. The site shall not be utilized for disposal of any wastes originating outside of the erior City limits of the Tri-Cities of Fremont, Newark and Union City, except as allowed in idition 8. Recyclable materials from outside the Tri-Cities area may be accepted and/or p cessed at the site, but in no instance is such material to be permanently retained on-site exc t for those materials approved by the State as alternative daily cover and, in fact, used cover material.

8. In the event a major fuel shortage or natural disaster precludes hauling wastes to other landfills from Alameda County communities, the TCRDF site may receive nonhazardous Group 3 wastes from those communities. Such a determination is to be made by the Environmental Services Division Administrator in consultation with the City Manager and the Alameda County Waste Management Authority.

9. The operator shall place daily cover material, as defined in CCR Title 27, over the active face at the completion of each working day. As an alternative the applicant may choose to operate under State prescribed performance standards, in accordance with CCR Title 27, subject to the approval of the Alameda County Department of Environmental Health.

10. The operating area shall be enclosed with an approved and suitable fence, in order to prevent off-site migration of blowing rubbish, and unregulated or unauthorized dumping. The fence shall be properly maintained at all times.

11. The operator shall regularly take measures to suppress dust production in the dumping area and on all roadways, paved or unpaved, at the landfill site. Measures utilized shall be to the satisfaction of the City Engineer.

12. When the site is operated under State prescribed performance standards; the premises shall be inspected at least once a week for rodent burrows, droppings or other evidence of insect breeding. Any infestation shall be effectively controlled by the proper use of poisons, gas, traps, insecticide sprays or other methods as necessary. Methods used to control pests or disease vectors shall be selected so as to minimize potential harm to any endangered, threatened or "special concern" species (as determined by state and federal resource agencies) which might inhabit adjacent wetland areas.

13. Fire fighting equipment on the premises and all comfort heating devices maintained on the premises shall be as approved by the Fremont Fire Department.

14. The siting and use of temporary structures needed for the operations of this facility may be granted by the Director of Development and Environmental Services as a minor amendment to this permit. Such minor amendments do not relieve the applicant from applying for the building permits required by the City Code and should not be construed as allowing buildings or uses not directly related to the facility operations. Impact fees shall be paid as appropriate.

15. The City Environmental Services Division Staff shall review the permit every 36 months to ensure that all conditions appended to it are complied with. Waste Management of Alameda County, Inc., or its successors or assigns shall provide information as requested by City staff .

part of this review. Fees associated with the Conditional Use Permit Review shall be paid by Waste Management of Alameda County. Findings shall be presented to the Planning Commission.

The permittee shall immediately notify the Planning Commission when it has decided to terminate the operation. The Planning Commission may review the use permit at an earlier date if it determines that conditions have changed that will affect or be affected by the subject use.

16. This use permit shall be subject to revocation or modification by the Planning Commission at such time as any of the following conditions apply:

    a. After commencement of the sanitary landfill operation there occurs a cessation of operations for a continuous period of six months.

    b. Determination of the Planning Commission that the operation of dumping and disposing of rubbish and garbage on the property in question is contrary to the conditions of this permit.

    c. There occurs the emission of objectionable odors that are detectable off the premises. Objectionableness of odors will be determined in accordance with procedures of the Bay Area Air Quality Management District.

17. The applicant shall continue to provide a Faithful Performance Bond in the amount of $100,000.00. Said bond shall be conditioned upon the performance of all the terms and conditions as set forth in applicable laws and regulations, and this use permit. Proper evidence of bonding must be presented to the City of Fremont in a form, which is approved by the City Attorney.

18. Once landfilling is completed, excessive irrigation of the final surface shall be avoided. Irrigation rates shall not exceed the rate of evapotranspiration in order to avoid a buildup of leachate in the landfill.

19. Final design of drainage at the landfill shall be approved by the Director of Development and Environmental Services.

20. Access to the San Francisco Bay National Wildlife Refuge shall be provided for Refuge personnel during the life of the landfill operation. The permittee shall provide for public access to the refuge area after termination of the landfill operation, or earlier if the Planning Commission determines that public access will not conflict with the landfill operation.

21. Use of heavy equipment shall be prohibited in wetland portions of the landfill site, as identified by the U.S. Corps of Engineers. Where such encroachment is necessary by reason of the construction of or reinforcement of levees or the excavation of wells required by other agencies, the Director of Development and Environmental Services shall be notified.

22. If suspected archaeological resources are encountered during excavation of the expansion area, the permittee shall notify the Director of Development and Environmental Services and shall halt operations in the immediate surrounding area and shall retain a qualified archaeologist to analyze the finding and make recommendations as to their disposition or other treatment.

23. Twenty-four months prior to completion of the landfill operation, the permittee shall submit a landfill final closure and post closure maintenance plan, including any proposed re-use plan, for approval by the Planning Commission.

24. Appropriate sign permits shall be obtained.

25. The Director of Development and Environmental Services shall grant a use permit provided that the applicable provisions above have been complied with, and provided that the Alameda County Waste Management Authority, the Alameda County Department of Environmental Health, and the California Integrated Waste Management Board find that the proposed sanitary landfill operation is consistent with County and State plans and policies for solid waste management.

26. The Director of Development and Environmental Services shall have authority to approve minor adjustments in the proposed grading plan as may be necessitated by actions of other agencies. This authority is limited to the extent such changes do not substantially change the intent of the landfill plan, as expressed by this permit.

27. An on-site drop-off center for recycled materials shall be provided and maintained subject to the approval of the Director of Development and Environmental Services. The center shall receive, at a minimum, cardboard, newspaper, metal cans and bottle glass. The center shall operate seven days a week during normal business hours.

28. Waste Management, Inc. (Tri-Cities Waste Management) shall provide a monthly report to the Development and Environmental Services Department/Environmental Services Division and to the Tri-City Waste Disposal Authority. The report shall include monthly tonnages handled (by type and by City) and vehicles using the landfill site (franchise haul, commercial, self-haul, and other). The report shall be submitted to the satisfaction of the Director of Development and Environmental Services and the Executive Director of the Tri-City Waste Disposal Authority.

29. If the Planning Commission finds evidence that conditions of approval have not been fulfilled or that the use has resulted in a substantial adverse effect on the health, and/or general welfare of users of adjacent or proximate property, or have a substantial adverse impact on public facilities or services, the permit may be reviewed at that time. If, upon such review, the Commission finds that any of the results above have occurred, the Commission may revoke the use permit.

30. The maximum height of the landfill in Area 1 of the facility shall be 150 feet.

31. Truckloads and inactive stockpiles of cover material shall be covered to further reduce dust generation. Annual mulching or seeding of exposed, inactive landfill areas shall be implemented.

32. Trucks shall be free of excessive dust, mud and dirt when leaving the site and entering the public roadway. If the Environmental Services Division Administrator determines that this condition is not being complied with, the City may require the installation of wheel washing facilities or other corrective measures.

33. The applicant shall maintain and monitor the existing leachate collection systems. Such systems shall be extended and expanded as necessary to accommodate the increase in the height and capacity of the landfill.

34. The applicant shall maintain and monitor the existing landfill gas control system. If the capacity of the existing landfill gas control system is exceeded as the height and capacity of the landfill is increased, addition of another flare or implementation of an energy recovery system shall be required.

35. The landfill's emergency response/remediation plan shall be updated as necessary and shall include provision for immediate inspection and repair of landfill should displacement occur as a result of an earthquake.

36. As long as the dredged material is stockpiled on site, the applicant shall provide measures to control erosion and siltation. The erosion and siltation measures shall be subject to the review and approval by the City Engineer.

37. At the time that the applicant submits a closure plan for the facility to the City for review, an analysis of the suitability of the dredged soil for clay or impervious cap material shall also be submitted. The findings of that analysis shall be subject to review and approval by the Director of Development and Environmental Services.

38. Any dredged material hauled to the landfill site shall be only that material which is dredged from the Dredge Disposal Site Reconfiguration Project in San Leandro. This material may only be stockpiled for future closure activities, unless otherwise approved by the Development and Environmental Services Director.

39. Acceptance of biosolids material from the Union Sanitary District Wastewater Treatment facility shall be given first priority over material imported from districts outside the Tri-City boundaries.

40. The applicant shall provide measures to control erosion and siltation during and after any site work has been completed. The erosion and siltation measures shall be subject to the review and approval by the City Engineer.

41. Biosolids transported to the landfill for use as alternative daily cover shall be monitored prior to hauling for proper moisture content, and watered as needed to prevent dust emissions during transportation. All haul trucks transporting biosolids material shall be tarped.

42. The applicant shall provide an annual report to the City Environmental Services Division Administrator on all daily, intermediate and final cover placed on the landfill. The report shall provide details of all cover by material type and weight on a monthly basis, to the satisfaction of the City Environmental Services Division Administrator.

43. Nothing in the approval of this amendment shall affect any of the terms and obligations contained in the disposal agreement, the amendment to the disposal agreement, and the Settlement Agreement between the Tri-Cities Recycling and Disposal Facility/Waste Management, Inc. and the City.

Appendix C

BAAQMD Environmental Information Form

(Form H)

Form Appendix H

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
939 Ellis Street . . . San Francisco, CA 94109. . . (415) 749-4990 . . . FAX (415) 749-5030
Website: www.baaqmd.gov

APPENDIX H

ENVIRONMENTAL INFORMATION FORM

(To Be Completed By Applicant)

Date Filed: 12/10/2009

General Information

1. Name and address of developer or project sponsor:
   TriCities Recycling & Disposal 7010 Auto Mall Parkway, Fremont CA-94538
2. Address of project: 7010 Automall Parkway, Fremont CA-94538

   Assessor's Block and Lot Number: 537-801-3-4
3. Name, address, and telephone number of person to be contacted concerning this project:
   Ms. Becky Zito, TriCities Recycling and Disposal Facility, 7010 Auto Mall Parkway, Fremont, CA-94538
4. Indicate number of the permit application for the project to which this form pertains:
   tbd
5. List and describe any other related permits and other public approvals required for this project, including those required by city, regional, state, and federal agencies:
   BAAQMD Authority to Construct Permit # 9222 issued for similar project at the site.
   Project was never built and ATC was withdrawn.
6. Existing zoning district: Baylands South Planning Area (City of Fremont)
7. Proposed use of site (Project for which this form is filed):
   Landfill Gas to Energy Plant

Project Description

8. Site size.
9. Square footage.
10. Number of floors of construction.
11. Amount of off-street parking provided.
12. Attach plans.
13. Proposed scheduling.
14. Associated project.
15. Anticipated incremental development.

16. If residential, include the number of units, schedule of unit sizes, range of sale prices or rents, and type of household size expected.

17. If commercial, indicate the type, whether neighborhood, city or regionally oriented, square footage of sales area, and loading facilities.

18. If industrial, indicate type, estimated employment per shift, and loading facilities

19. If institutional, indicate the major function, estimated employment per shift, estimated occupancy, loading facilities, and community benefits to be derived from the project.

20. If the project involves a variance, conditional use or rezoning application, state this and indicate clearly why the application is required.

Are the following items applicable to the project or its effects? Discuss below all items checked yes. Attach additional sheets as necessary.

	Yes	No
21. Change in existing features of any bays, tidelands, beaches, or hills, or substantial alteration of ground contours.	☐	☒
22. Change in scenic views or vistas from existing residential areas or public lands or roads.	☐	☒
23. Change in pattern, scale or character of general area of project.	☐	☒
24. Significant amounts of solid waste or litter.	☐	☒
25. Change in dust, ash, smoke, fumes or odors in vicinity.	☐	☒
26. Change in ocean, bay, lake, stream or groundwater quality or quantity, or alteration of existing drainage patterns.	☐	☒
27. Substantial change in existing noise or vibration levels in the vicinity.	☐	☒
28. Site on filled land or on slope of 10 percent or more.	☐	☒
29. Use of disposal of potentially hazardous materials, such as toxic substances, flammables or explosives.	☐	☒
30. Substantial change in demand for municipal services (police, fire, water, sewage, etc.).	☐	☒
31. Substantially increase fossil fuel consumption (electricity, oil, natural gas, etc.).	☐	☒
32. Relationship to a larger project or series of projects.	☐	☒

Environmental Setting

33. Describe the project site as is exists before the project, including information on topography, soil stability, plants and animals, and any cultural, historical or scenic aspects. Describe any existing structures on the site, and the use of the structures. Attach photographs of the site. Snapshots or Polaroid photos will be accepted.

34. Describe the surrounding properties, including information on plants and animals and any cultural, historical or scenic aspects. Indicate the type of land use (residential, commercial, etc.), intensity of land use (one-family, apartment houses, shops, department stores, etc.), and scale of development (height, frontage, set-back, rear yard, etc.). Attach photographs of the vicinity. Snapshots or Polaroid photos will be accepted.

Certification

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this initial evaluation to the best of my ability, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

12-22-09
Date

Signature

For _____

(Note: This is only a suggested form. Public agencies are free to devise their own format for initial studies.)

Appendix D

CAT 3520B Engine Technical Information

GAS GENERATOR SET

CATERPILLAR®

Image shown may not reflect actual package

LOW ENERGY FUEL CONTINUOUS 1600 ekW / 2000 kVA 60 HZ 1200 RPM 480 VOLTS

Caterpillar is leading the power generation marketplace with Power Solutions engineered to deliver unmatched flexibility, expandability,

BENEFITS

EMISSIONS
- Meets most worldwide emissions requirements down to .5 g/bhp-hr NOx level without aftertreatment

FULL RANGE OF ATTACHMENTS
- Wide range of bolt-on system expansion attachments, factory designed and tested
- Flexible packaging options for easy and cost effective installation

PROVEN SYSTEM
- Fully protype tested
- Field proven in a wide range of applications worldwide
- Certified torsional vibration analysis available

WORLDWIDE PRODUCT SUPPORT
- Caterpillar® dealers provide extensive post sales support including maintenance and repair agreement
- Caterpillar dealers have over 1,600 dealer branch stores operating in 200 countries
- CAT® S.O.S SM program cost effectively detects internal engine component condition, even the presence of unwanted fluids and combustion by-products

CAT ® G3520C GAS ENGINE
- Robust high speed diesel block design provides prolonged life and lower owning operating costs
- Designed for maximum performance on low pressure gaseous fuel supply
- Simple open chamber combustion system for reliability and fuel flexibility
- Leading edge technology in ignition system and air/fuel ratio control for lower emission and engine efficiency
- One electronic control module handles all engine functions: ignition, governing, air/fuel ratio control and engine protection

CAT SR4B GENERATOR
- Designed to match performance and output characteristics of Caterpillar gas engines
- Industry leading mechanical and electrical design
- High efficiency

CAT EMCP II+ CONTROL PANEL
- Simple user friendly interface and navigation
- Digital monitoring, metering and protection setting
- Fully-featured power metering and protective relaying
- UL 508A Listed
- Remote control and monitor capability options

Factory Installed Standard & Optional Equipment

System	Standard	Optional
Gas Engine Control Module (GECM)	Fuel/air ratio control; Start/stop logic: gas purge cycle, staged shutdown; Engine Protection System: detonation sensitive timing, high exhaust temperature shutdown; Governor: Transient richening and turbo bypass control; Ignition.	
Air Inlet	Two element, single-stage air cleaner with enclosure and service indicator	Air cleaner with precleaner; Mounting stand
Control Panel	EMCP II+	Local alarm module; Remote annuciator; Communications Module (PL1000T, PL1000E) Synchronizing module; Engine failure relay
Cooling	Engine driven water pumps for jacket water and aftercooler; Jacket water and SCAC thermostats; ANSI/DN customer flange connections for JW inlet and outlet Cat flanges on SCAC circuit	coolant level drain line with valves, fan with guard; Inlet/Outlet connections.
Exhaust	Dry exhaust manifolds, insulated and shielded; Center section cooled turbocharger with Cat flanged outlet; Individual exhaust port and turbocharger outlet wired to Integrated Temperature Sensing Module (ITSM) with GECM providing alarms and shutdowns.	Flange; Exhaust expander; Elbow; Flexible fitting; Muffler and spark-arresting muffler with companion flanges.
Fuel	Electronic fuel metering valve; Throttle plate, 24V DC actuator, controlled by GECM; Fuel system is sized for 10.8 to 25.6 MJ/NM3 (275 to 650 Btu/cu ft) dry pipeline natural gas with pressure of 10.0 to 34.5 kPa (1.5 to 5 psi) to the engine fuel control valve.	Fuel filter; Gas pressure regulator; Gas shutoff valve, 24V, ETR (Energized-To-Run)
Generator	SR4B generator, includes: Caterpillar's Digital Voltage Regulator (CDVR) with 3-phase sensing and KVAR/PF control; Reactive droop; Bus bar connections; Winding temperature detectors; Anti-condensation space heater.	Medium and high voltage generators and attachments; Low voltage extension box; Cable access box; Air filter for generator; Bearing temperature detectors; Manual voltage control; European bus bar.
Governing	Electronic speed governor as part of GECM; Electronically-controlled 24V DC actuator connected to throttle shaft.	Woodward load sharing module
Ignition	Electronic Ignition System controlled by GECM; Individual cylinder Detonation Sensitive Timing (DST)	
Lubrication	Lubricating oil; Gear type lube oil pump; Oil filter, filler and dips Integral lube oil cooler; Oil drain valve; Crankcase breather.	Oil level regualtor; Prelube pump; Positive crankcase ventilation system
Mounting	330 mm structural steel base (for low and medium voltage units); Spring-type anti-vibration mounts (shipped loose)	
Starting / Charging	24V starting motors; Battery with cables and rack (shipped loo Battery disconnect switch; 60A, 24V charging alternator (standard on 60Hz 1800rpm only)	Charging alternator; Battery charger; Oversized battery; Lacket water heater;
General	Paint -- Caterpillar Yellow except rails & radiators; Damper guard. Operation and Maintenance Manuals; Parts Book.	Crankcase explosion relief valve; Engine barring group; EEC D.O.I and other certifications

CATERPILLAR®

SPECIFICATIONS

CAT GAS ENGINE

G3520C SCAC 4-stroke-cycle watercooled gas engine

Number of Cylinders	V20
Bore --- mm (in)	170 (6.7)
Stroke --- mm (in)	190 (7.5)
Displacement --- L (cu in)	86.3 (5266)
Compression Ratio	11.3:1
Aspiration	Turbocharged Separate Circuit Aftercooled
Cooling Type	Two stage aftercooler, JW + O/C + A/C 1 combined
Fuel System	Low Pressure
Governor Type	Electronic (ADEM ™ III)

CAT SR4B GENERATOR

Frame size	868
Excitation	Permanent Magnet
Pitch	0.75
Number of poles	6
Number of bearings	2
Number of leads	6
Insulation	Class H
IP rating	Drip proof IP22
Alignment	Pilot shaft
Overspeed capability -- % of rated	125%
Waveform deviation line to line, no load	less than 3.0%
Paralleling kit droop transformer	Standard
Voltage regulator	CDVR
Voltage level adjustment	+/- 5.0%
Voltage regulation, steady state	+/- 0.5%
Voltage regulation with 3% speed change	+/- 0.5%
Telephone Influence Factor (TIF)	less than 50

Consult your Caterpillar dealer for available voltage

CAT EMCPII+ CONTROL PANAL

- Power by 24 volts DC
- NEMA 12, IP44 dust-proof enclosure
- Lockable hinged door
- Single-location customer connection
- Auto start/stop control switch
- Voltage adjustment potentiomenter
- True RMS AC metering, 3 phase
- Purge cycle and staged shutdown logic
- Digital indication for:
  - RPM
  - Operating hours
  - Oil pressure
  - Coolant temperature
  - DC voltage
  - L-L volts, L-N volts, phase amps, Hz,
  - ekW, kVA, kVAR, kWhr, %kW, pf
  - System diagnostic codes
- Shutdown with indicating lights;
  - Low oil pressure
  - High coolant temperature
  - High oil temperature
  - Overspeed
  - Overcrank
  - Emergency stop
  - High inlet air temperature (for TA engine only)
  - Detonation sensitive timing (for LE engine only)
- Programmable protective relaying functions:
  - Under / Over voltage
  - Under / Over frequency
  - Overcurrent
  - Reverse power
- Spare indicator LEDs
- Spare alarm/shutdown inputs

Materials and specifications are subject to change without notice.
The International System of Units (SI) is used in this publication.

TECHNICAL DATA

G3520C Gas Generator Set			DM 5859		DM 5860	
Emission level (NOx)	mg/Nm^3	g/bhp-hr	440	1.0	220	0.5
Aftercooler SCAC (Stage 2)	Deg C	Deg F	54	130	54	130
Package Performance (1)						
Power Rating @ 0.8 pf (w/ 2 water pumps and w/o fan)	ekW	Continuous	1600		1600	
Power Rating @ 0.8 pf (w/ 2 water pumps and w/o fan)	kVA	Continuous	2000		2000	
Power Rating @ 1.0 pf (w/ 2 water pumps and w/o fan)	ekW	Continuous	1613		1613	
Electric Efficiency @ 1.0 pf (ISO 3046/1) **(2)**	%		39.7%		38.9%	
Mechanical Power (w/ 2 water pumps and w/o fan)	bkW	bhp	1665	2233	1665	2233
Fuel Consumption (3)						
100% load w/o fan	Nm^3/hr	scf/hr	812	30 390	832	31 115
75% load w/o fan	Nm^3/hr	scf/hr	639	23 898	647	24 214
50% load w/o fan	Nm^3/hr	scf/hr	435	16 236	461	17 247
Altitude Capability (4)						
At 25 Deg C (77 Deg F) ambient, above sea level	M	ft	880	2888	420	1378
Cooling System						
Ambient air temperature	Deg C	Deg F	25	77	25	77
Jacket water temperature (Maximum outlet)	Deg C	Deg F	110	230	110	230
Exhaust System						
Combustion air inlet flow rate	Nm^3/min	SCFM	112	4317	117	4512
Exhaust stack gas temperature	Deg C	Deg F	488	910	481	898
Exhaust gas flow rate	Nm^3/min	CFM	121	12 063	127	12 476
Exhaust flange size (internal diameter)	mm	in	360	14	360	14
Heat Rejection (5)						
Heat rejection to jacket water and oil cooler and AC - Stage	kW	Btu/min	907	51 594	926	52 669
Heat rejection to AC - Stage 2	kW	Btu/min	153	8675	156	8895
Heat rejection to exhaust (LHV to 350 Deg F)	kW	Btu/min	994	56 564	1011	57 574
Heat rejection to exhaust (LHV to 120 Deg C)	kW	Btu/min	1176	66 938	1201	68 360
Heat rejection to atmosphere from engine	kW	Btu/min	127	7210	127	7210
Heat rejection to atmosphere from generator	kW	Btu/min	66.7	3797	66.7	3797
Generator						
Frame			868		868	
Temperature rise	Deg C	Deg F	105	221	105	221
Motor starting capability @ 30% voltage dip **(6)**	skVA		4079		4079	
Lubrication System						
Standard sump refill with filter change	L	gal	541	143	541	143
Emissions (7)						
NOx @ 5% O2 (dry)	mg/Nm^3	g/bhp-hr	440	1.0	220	0.5
CO @ 5% O2 (dry)	mg/Nm^3	g/bhp-hr	1100	2.5	1100	2.5
THC @ 5% O2 (dry)	mg/Nm^3	g/bhp-hr	2522	5.56	2601	5.84
NMHC @ 5% O2 (dry)	mg/Nm^3	g/bhp-hr	379	0.84	391	0.88
Exhaust O2 (dry)	%		8.7		9	

DEFINITIONS AND CONDITIONS

(1) **Continuous** --- Maximum output available for an unlimited time

Ratings are based on pipeline natural gas having a Low Heat Value (LHV) of 18 MJ/NM3 (456 Btu/ft3) and 120 Caterpillar Methane Number. For values in excess of altitude, ambient temperature, inlet/exhaust restriction, or different from the conditions listed, contact your local Caterpillar dealer.

(2) **Efficiency** of standard generator is used. For higher efficiency generators, contact your local Caterpillar dealer.

(3) **Ratings and fuel consumption** are based on ISO3046/1 standard reference conditions of 25 deg C (77 deg F) of ambient temperature and 100 kPa (29.61 in Hg) of total barometic pressure, 30% relative humidity with 0, +5% fuel tolerance.

(4) **Altitude** capability is based on 2.5 kPa air filter and 5.0 kPa exhaust stack restrictions.

(5) **Heat Rejection** --- Values based on nominal data with fuel tolerence of +/-2.5% and 2.5 kPa inlet and 5.0 kPa exhaust restrictions.

(6) Assume synchronous driver

(7) **Emissions data** measurements are consistent with those described in EPA CFR 40 Part 89 Subpart D & E and ISO8178-1 for measuring HC, CO, PM, NOx. Data shown is based on steady state engine operating conditions of 25 deg C (77 deg F), 96.28 kPa (28.43 in Hg) and fuel having a LHV of 35.6 MJ/NM3 (905 Btu/cu ft) and 80 Caterpillar Methane Number at 101.60 kPa (30.00 in Hg) absolute and 0 deg C (32 deg F). Emission darta shown is subject to instrumentation, measurement, facility, and engine fuel system adjustment.

DIMENSIONS

Package Dimensions		
Length	6367.1 mm	250.67 in
Width	1996.5 mm	78.60 in
Height	2465.1 mm	97.05 in
Est. Shipping Weight	18 350 kg	40 455 lb

Note: Do not use for installation design.
See general dimension drawings
for detail (Drawing # 267-7367).

Performance Number: DM5859, DM5860
Feature Code: 520GE38
Generator Argt: 158-6422
Source US Sourced

29-Jan-09

Appendix E

July 2007 Final EIR; May 2007 Draft EIR

Appendix F

SCREEN3 Output

10/24/11

12:25:32
  *** SCREEN3 MODEL RUN ***
  *** VERSION DATED 96043 ***

 C:\SCREEN 3 Projects\TriCities Engines.scr

 SIMPLE TERRAIN INPUTS:
    SOURCE TYPE   =   POINT
    EMISSION RATE (G/S)   =   1.00000
    STACK HEIGHT (M)   =   9.4488
    STK INSIDE DIAM (M)   =   0.4054
    STK EXIT VELOCITY (M/S)=   45.6190
    STK GAS EXIT TEMP (K) =   755.3722
    AMBIENT AIR TEMP (K)   =   293.0000
    RECEPTOR HEIGHT (M)   =   0.0000
    URBAN/RURAL OPTION   =   RURAL
    BUILDING HEIGHT (M)   =   0.0000
    MIN HORIZ BLDG DIM (M) =   0.0000
    MAX HORIZ BLDG DIM (M) =   0.0000

 THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
 THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS
ENTERED.

    STACK EXIT VELOCITY WAS CALCULATED FROM
    VOLUME FLOW RATE =   5.8880110   (M**3/S)

 BUOY. FLUX =   11.250 M**4/S**3; MOM. FLUX =   33.164 M**4/S**2.

 *** FULL METEOROLOGY ***

 ****
 *** SCREEN AUTOMATED DISTANCES ***
 ****

 *** TERRAIN HEIGHT OF   0. M ABOVE STACK BASE USED FOR FOLLOWING
DISTANCES ***

   DIST   CONC   U10M   USTK MIX HT   PLUME   SIGMA
SIGMA
    (M)   (UG/M**3)   STAB (M/S) (M/S)   (M)   HT (M)   Y (M)   Z
(M) DWASH
 ------- ---------- ---- ----- ----- ------ ------ ------
------ -----
      1.   0.000   1   1.0   1.0   320.0 141.06   2.67
2.65   NO

100.	4.658	3	10.0	10.0	3200.0	22.61	12.66	7.76	NO
200.	27.15	3	10.0	10.0	3200.0	22.61	23.88	14.46	NO
300.	25.50	3	8.0	8.0	2560.0	25.90	34.61	20.86	NO
400.	24.25	4	10.0	10.0	3200.0	22.61	29.69	15.73	NO
500.	22.58	4	8.0	8.0	2560.0	25.90	36.45	18.89	NO
600.	20.94	4	8.0	8.0	2560.0	25.90	42.98	21.73	NO
700.	18.80	4	8.0	8.0	2560.0	25.90	49.41	24.49	NO
800.	17.85	4	5.0	5.0	1600.0	35.77	56.08	27.82	NO
900.	16.81	4	5.0	5.0	1600.0	35.77	62.34	30.41	NO
1000.	15.73	4	4.5	4.5	1440.0	38.70	68.64	33.16	NO
1100.	14.68	4	4.5	4.5	1440.0	38.70	74.78	35.13	NO
1200.	13.83	4	4.0	4.0	1280.0	42.35	80.99	37.30	NO
1300.	13.01	4	4.0	4.0	1280.0	42.35	87.03	39.15	NO
1400.	12.35	4	3.5	3.5	1120.0	47.05	93.17	41.28	NO
1500.	11.73	4	3.5	3.5	1120.0	47.05	99.13	43.03	NO
1600.	11.13	4	3.5	3.5	1120.0	47.05	105.04	44.75	NO
1700.	10.90	5	1.0	1.0	10000.0	76.05	84.74	35.72	NO
1800.	11.34	5	1.0	1.0	10000.0	76.05	89.03	36.66	NO
1900.	11.73	5	1.0	1.0	10000.0	76.05	93.31	37.59	NO
2000.	12.06	5	1.0	1.0	10000.0	76.05	97.57	38.52	NO
2100.	12.27	5	1.0	1.0	10000.0	76.05	101.82	39.34	NO
2200.	12.44	5	1.0	1.0	10000.0	76.05	106.06	40.16	NO
2300.	12.57	5	1.0	1.0	10000.0	76.05	110.28	40.96	NO
2400.	12.68	5	1.0	1.0	10000.0	76.05	114.48	41.75	NO
2500.	12.75	5	1.0	1.0	10000.0	76.05	118.68		

```
42.54    NO
   2600.   12.80        5     1.0    1.0 10000.0   76.05  122.85
43.31    NO
   2700.   12.83        5     1.0    1.0 10000.0   76.05  127.02
44.07    NO
   2800.   12.84        5     1.0    1.0 10000.0   76.05  131.17
44.83    NO
   2900.   12.83        5     1.0    1.0 10000.0   76.05  135.31
45.57    NO
   3000.   12.81        6     1.0    1.0 10000.0   64.71   93.27
31.26    NO
   3500.   13.20        6     1.0    1.0 10000.0   64.71  106.83
33.00    NO
   4000.   13.35        6     1.0    1.0 10000.0   64.71  120.21
34.64    NO
   4500.   13.33        6     1.0    1.0 10000.0   64.71  133.44
36.20    NO
   5000.   13.19        6     1.0    1.0 10000.0   64.71  146.52
37.68    NO

 MAXIMUM 1-HR CONCENTRATION AT OR BEYOND     1. M:
    222.   27.70        3    10.0   10.0  3200.0   22.61   26.38
15.95    NO

  DWASH=   MEANS NO CALC MADE (CONC = 0.0)
  DWASH=NO MEANS NO BUILDING DOWNWASH USED
  DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
  DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
  DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

      ************************************
      *** SUMMARY OF SCREEN MODEL RESULTS ***
      ************************************

  CALCULATION        MAX CONC    DIST TO   TERRAIN
   PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
 --------------    -----------   -------   -------
 SIMPLE TERRAIN      27.70          222.        0.


 ************************************************
 ** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
 ************************************************
```

Appendix G

URBEMIS2007 Output

11/8/2011 12:40:05 PM

Urbemis 2007 Version 9.2.4

Summary Report for Summer Emissions (Pounds/Day)

File Name: C:\Users\3004jjh\AppData\Roaming\Urbemis\Version9a\Projects\TriCities LFGTE AQIA.urb924

Project Name: Tri-Cities LFGTE Facility

Project Location: Bay Area Air District

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2012 TOTALS (lbs/day unmitigated)	5.16	41.22	20.53	0.00	1.21	1.79	3.00	0.25	1.65	1.90	5,113.60

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	0.24	0.25	2.65	0.00	0.50	0.10	285.55

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	0.24	0.25	2.65	0.00	0.50	0.10	285.55

11/8/2011 12:40:47 PM

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: C:\Users\3004jjh\AppData\Roaming\Urbemis\Version9a\Projects\TriCities LFGTE AQIA.urb924

Project Name: Tri-Cities LFGTE Facility

Project Location: Bay Area Air District

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2012 TOTALS (lbs/day unmitigated)	5.16	41.22	20.53	0.00	1.21	1.79	3.00	0.25	1.65	1.90	5,113.60

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	0.23	0.37	2.78	0.00	0.50	0.10	246.72

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	0.23	0.37	2.78	0.00	0.50	0.10	246.72

Appendix H

TCRDF 2007 Rezoning Amendment

ORDINANCE NO. 25-2007

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FREMONT AMENDING CHAPTER 2, TITLE VIII OF THE FREMONT MUNICIPAL CODE BY REZONING APPROXIMATELY 46 ACRES OF PROPERTY LOCATED AT THE WESTERN TERMINUS OF AUTOMALL PARKWAY IN THE TRI-CITIES RECYCLING AND WASTE FACILITY FROM AGRICULTURAL WITH A FLOOD OVERLAY TO PLANNED DISTRICT "P-2005-262(F)" WITH A FLOOD OVERLAY

The City Council of the City of Fremont does ordain as follows:

Section 1: Amendment of Zoning Maps.

The Zoning Map of the City of Fremont, Section 8-2300 of the Fremont Municipal Code, is hereby amended by rezoning certain property from Agricultural with a Flood Overlay to Planned District P-2005-262(F). The location of the property is set forth on the drawing attached hereto as Attachment 1. The Preliminary and Precise Plan for P-2005-262(F) as shown on Attachment 1 is hereby approved, and the standards, uses and conditions (Exhibit "D" to staff report) and the related findings and conditions of approval (Exhibit "C" to staff report), which are on file in the Office of the City Clerk, are hereby approved and shall be effective within P-2005-262(F).

Section 2: CEQA Compliance.

As part of the process of considering the Tri-Cities Recycling and Disposal Facility landfill closure and interim land use plan, the City has analyzed the environmental effects of this ordinance, certified an Environmental Impact Report and a Mitigation Monitoring and Reporting Program on October 9, 2007, and made necessary findings required by the California Environmental Quality Act. The City finds that the adoption of this ordinance is within the scope of the EIR.

Section 3: Effective Date.

This Ordinance shall be in full force and effect thirty (30) days from and after the date of its adoption.

Section 4: Publication.

This Ordinance shall be published once in *The Argus*, a newspaper of general circulation printed and published in Alameda County and circulated in the City of Fremont, within fifteen (15) days from and after its adoption.

The foregoing Ordinance was duly introduced before the City Council of the City of Fremont, County of Alameda, at the meeting of the City Council held on the 9th day of October, 2007, and finally adopted at a regular meeting of said Council held on the 23rd day of October, 2007, by the following vote, to wit:

AYES:	Mayor Wasserman, Vice Mayor Wieckowski, Councilmembers Cho, Natarajan, and Harrison
NOES:	None
ABSTAIN:	None
ABSENT:	None

Bob Wasserman
Mayor

ATTEST:

City Clerk

APPROVED AS TO FORM:

Assistant City Attorney

Pln 2005-00262

Planned District Exhibit "F"

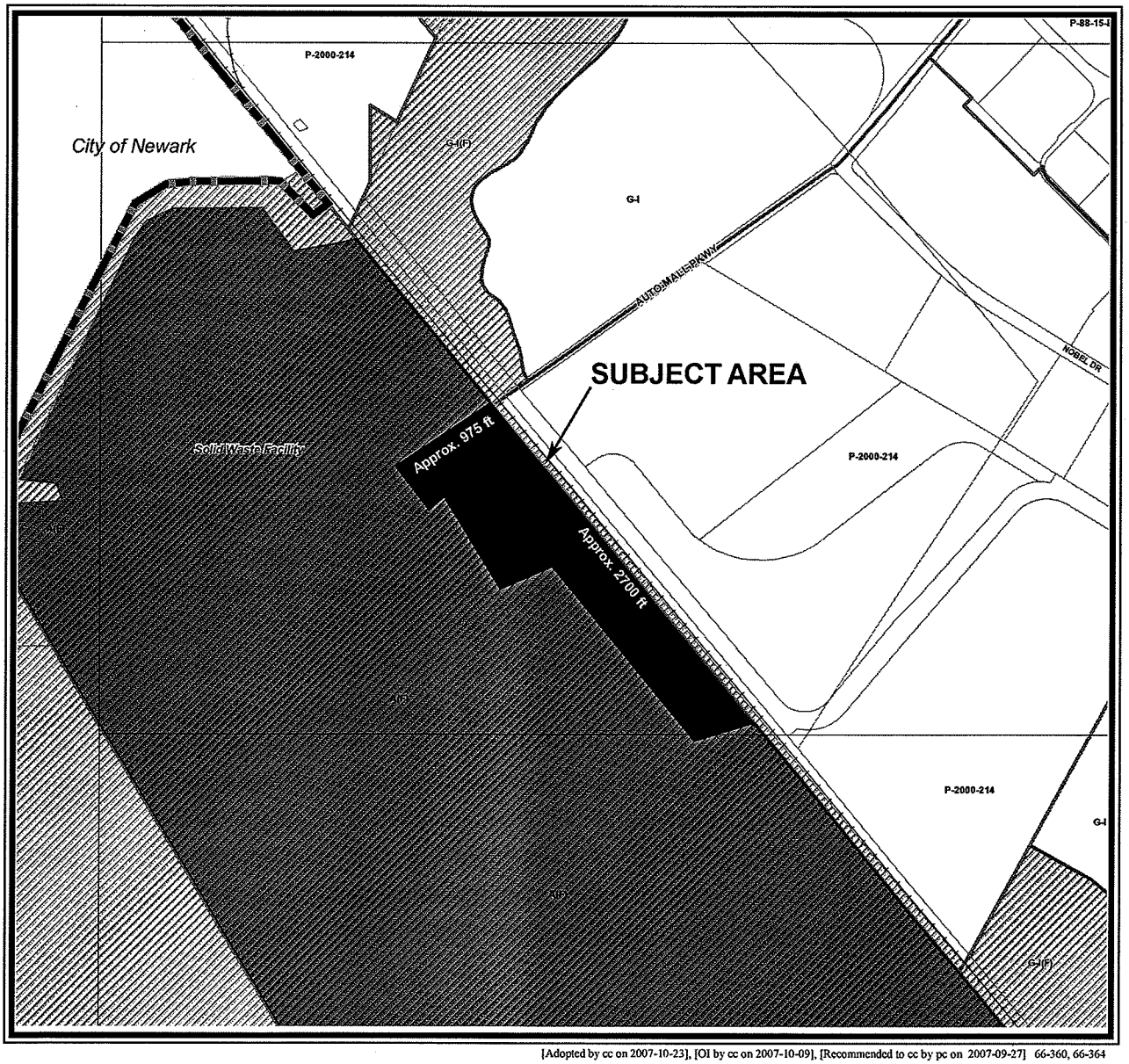
Incorporated as Attachment No. *1*

And Made Part of Ordinance No. *25-2007*

On the 23rd day of October , 2007 .

ZONING MAP (SECTION)

AFFECTS ZONING MAP(S) IN THE BAYLANDS SOUTH PLANNING AREA



[Adopted by cc on 2007-10-23], [OI by cc on 2007-10-09], [Recommended to cc by pc on 2007-09-27] 66-360, 66-364

Project Name: **Tri-Cities Recycling and Disposal Facility Landfill Closure and LandUse Plan**

Change From: **A(F)**

To: **P-2005-262(F)**

kd

Exhibit "D"
Landfill Closure Planned District PLN2005-0262
7010 Automall Parkway

Purpose:
Facilitate compatible interim land use plans and final reuse land use plans consistent with operation and maintenance of the landfill and underlying General Plan use designation through Planned District zoning in consideration of the area's geographic, environmental, and real land use constraints relating to surrounding properties and future uses, as well as with the ongoing maintenance and monitoring of the abutting landfill on the project site.

Uses: Those uses and conditions authorized by CUP PLN2000-00085, approved October 28, 1999, except as modified herein. Industrial and service uses associated with material recovery and refuse collection, maintenance of on-site facilities, small service vehicle fleet operations as described specifically below:

Permitted Interim Uses: Use of land and building facilities for a corporation yard for maintenance of facilities associated with management of the landfill and storage of up to a total of 50 collections vehicles in association with activities related to the collection, hauling of refuse or recyclables through July 31, 2015. Storage of vehicles shall be defined as trucks used for local collection activities that are stored on-site or overnight in addition to equipment used for the maintenance and monitoring of the landfill. No transfer trucks,-semi-trucks, or similar vehicles are permitted. Corporation yard improvements, buildings, and activities include maintenance and service of vehicles stored on the site and equipment used for ongoing maintenance and monitoring of the landfill. Development of the corporation yard or other site improvements are subject to approval by the Development Organization.

Temporary Interim Uses: Use of land for material recovery, collection, and sorting without construction of permanent facilities. This may include temporary stockpile of materials and use of mobile material recovery equipment. Such use requires a Zoning Administrator Permit (ZAP). Issued permits shall have a maximum duration of three (3) years from the date it is approved, but in no event will a permit be valid beyond January 1, 2012. All materials and equipment shall be removed from the site prior to the expiration of a ZAP.

Any other use not described herein shall require a revision to the Planned District and shall be processed as a rezoning.

Future Land Use Plan: A final Planned District Precise Plan depicting the types of uses, layout, and intensity of use shall be submitted in accordance with City standards and procedures for consideration by the City Council prior to January 1, 2015 or establishment of permanent facilities, whichever comes first. Approval of the Final Plan shall consider site constraints, environmental constraints, compatibility with surrounding developments, and uses consistent with the underlying General Plan designation.

Exhibit "D"
Landfill Closure Planned District PLN2005-0262
7010 Automall Parkway

Development Review Process and Standards:
Zoning Administrator uses shall be processed as a Planned District Minor Amendment (acting as a ZAP) subject to review and approval of the Zoning Administrator. Zoning Administrator entitled uses will then subsequently be processed in accordance with the standards set forth under the Permitted uses section below.

Permitted uses and accessory uses shall be processed in accordance with Site Plan and Architectural Review standards (Sections 8-22700 through 8-22709) and I-L Zoning District standards (Sections 8-21415.5 through 8-21418 of the Fremont Municipal Code by the Development Organization.

Preliminary and Final Grading Plans are subject to the standards of the Fremont Municipal Code § 8-4100 through § 8-4139 and the Municipal Stormwater Permit. Approval of a preliminary grading permit is at the discretion of the City Engineer.

Additional Development Standards:
All development permits, grading permits, and building permits shall be reviewed to ensure consistency with the adopted Mitigation Monitoring Program of the Certified Final EIR for this Planned District prior to the issuance of a permit.