

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Draft Final Environmental Assessment:

**Proposed Amended Rule 1133.1 – Chipping and Grinding Activities and
Proposed Rule 1133.3 – Emission Reductions from
Greenwaste Composting Operations**

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PREFACE

This document constitutes the Final Environmental Assessment (EA) for Proposed Amended Rule 1133.1 – Chipping and Grinding Activities and Proposed Rule 1133.3 – Emission Reductions from Greenwaste Composting Operations. The Draft EA was released for a 30-day public review and comment period from June 2, 2011 to July 1, 2011. One comment letter was received, as well as several verbal comments from a working group meeting. These comments and responses to the comments are provided in Appendix E. The environmental analysis in the Draft EA concluded that Proposed Amended Rule 1133.1 and Proposed Rule 1133.3 would not generate any significant adverse environmental impacts.

Minor modifications were made to the Draft EA. To facilitate identifying modifications to the document, added and/or modified text is underlined. None of the modifications alter any conclusions reached in the Draft EA, nor provide new information of substantial importance relative to the draft document. As a result, these minor revisions do not require recirculation of the document pursuant to CEQA Guidelines §15088.5. Therefore, this document now constitutes the Final EA for Proposed Amended Rule 1133.1 and Proposed Rule 1133.3.

CHAPTER 1 - PROJECT DESCRIPTION

Introduction

California Environmental Quality Act

Project Location

Project Objective

Emission Effects of PAR 1133.1 and PR 1133.3

Project Background

Project Description

INTRODUCTION

The California Legislature created the South Coast Air Quality Management District (SCAQMD) in 1977¹ as the agency responsible for developing and enforcing air pollution control rules and regulations in the South Coast Air Basin (Basin) and portions of the Salton Sea Air Basin and Mojave Desert Air Basin (collectively known as the “district”). By statute, the SCAQMD is required to adopt an air quality management plan (AQMP) demonstrating attainment of all federal and state ambient air quality standards for the district. Furthermore, the SCAQMD must adopt rules and regulations that carry out the AQMP². The 2007 AQMP concluded that major reductions in emissions of volatile organic compounds (VOCs) and oxides of nitrogen (NOx) are necessary to attain the state and national ambient air quality standards for ozone, particulate matter with an aerodynamic diameter of 10 microns or less (PM10) and particulate matter with an aerodynamic diameter of 2.5 microns or less (PM2.5). Ozone, a criteria pollutant, is formed when VOCs react in the presence of light with NOx in the atmosphere and has been shown to adversely affect human health. VOC emissions also contribute to the formation of PM10 and PM2.5. The federal one-hour and eight-hour ozone standards were exceeded in all four counties and in the Salton Sea Air Basin in 2008. The Central San Bernardino Mountain area recorded the greatest number of exceedences of the one-hour state standard (79 days), eight-hour state standard (115 days), eight-hour federal standard (97 days), as well as, health advisory days (two days). Altogether, in 2008, the South Coast Air Basin exceeded the federal eight-hour standard on 120 days, the state one-hour standard on 102 days, and the state eight-hour standard on 140 days.

SCAQMD adopted a series of rules (Rules 1133, 1133.1 and 1133.2) in January 2003 covering composting operations. Composting is a biological process in which organic material is decomposed by microorganisms under controlled conditions to generate compost that can be used to reintroduce nutrients into the soils. VOC and ammonia emissions occur during this process, but can be reduced cost-effectively.

Proposed Amended Rule (PAR) 1133.1 would establish best management practices (BMPs) for chipping and grinding operations ~~taking place at facilities that accept greenwaste consistent with Title 14 California Code of Regulations and that~~ produce materials other than active or finished compost, unless otherwise allowed by the local enforcement agency (LEA), pursuant to Title 14 California Code of Regulations, for a longer period of time. PAR 1133.1 would also establish maximum holding time of raw greenwaste material. PAR 1133.1 would apply not only to any stand-alone facility receiving greenwaste material for chipping and grinding, but also to any facility co-located at a material recovery facility (MRF), a landfill using this material for alternative daily cover (ADC), a transfer station, or a biomass energy production facility. PAR 1133.1 would establish requirements for processing greenwaste for other uses but composting. Under PAR 1133.1, foodwaste is not to be taken by the facility for chipping and grinding unless otherwise allowed by the LEA. In addition, raw greenwaste would be required to be chipped or ground and utilized or removed from the site within 48 hours of receipt, excluding official federal and state holidays, or up to seven days maximum with approval from ~~unless otherwise allowed by the LEA~~.

¹ The Lewis-Presley Air Quality Management Act, 1976 Cal. Stats., ch 324 (codified at Health & Safety Code, §§40400-40540).

² Health & Safety Code, §40440 (a).

Proposed Rule (PR) 1133.3 would apply to greenwaste composting operations involving organic waste materials, including greenwaste, woodwaste, manure and foodwaste. PR 1133.3 has requirements for the operator to process greenwaste for on-site composting ~~within 48 hours of receipt unless otherwise as~~ allowed by the LEA. ~~to be held for a longer period of time.~~ Foodwaste is also subject to the 48 hour processing time to initiate composting on-site or covered with finished compost until used, unless otherwise required by the LEA. For composting operations of greenwaste-only or greenwaste mixed with up to 20 percent manure, by volume, or up to 5,000 tons per year of foodwaste throughput, operators would be required to cover the initial active phase pile with finished compost within three hours of formation, such that the top is at least six inches thick and the pile is not turned for the first seven days of the active phase of composting, which is followed by additional watering to a three inch depth to the top half of the pile, prior to turning, during the first 15 days of the active phase composting period.

For greenwaste composting operations processing greenwaste mixed with greater than 5,000 tons per year of foodwaste throughput, the operator would be required to install an emission control device achieving a minimum 80 percent control efficiency for all active phase compost piles processing foodwaste. It should be noted that greenwaste composting including greater than 20 percent manure is presently subject to Rule 1133.2 for co-composting operations.

Approximately 70 existing greenwaste chipping and grinding operations or facilities would be subject to the requirements of PAR 1133.1. Based on the assumption that most of these facilities are already in compliance with the proposed amendments to Rule 1133.1, no emission reduction is assumed. PR 1133.3 is applicable to 17 existing greenwaste composting facilities. Based on the emissions inventory compiled for greenwaste compost facilities in the SCAQMD, the total emissions reduction associated with the PR 1133.3 is estimated to be 0.9 tons of VOC and 0.1 tons of ammonia per day.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

PAR 1133.1 and PR 1133.3 are discretionary actions, which have the potential for resulting in direct or indirect changes to the environment and, therefore, are considered a “project” as defined by the California Environmental Quality Act (CEQA). SCAQMD is the lead agency for the proposed project and has prepared this ~~Draft~~ Final Environmental Assessment (EA) with no significant adverse impacts pursuant to its Certified Regulatory Program and SCAQMD Rule 1110. California Public Resources Code §21080.5 allows public agencies with regulatory programs to prepare a plan or other written document in lieu of an environmental impact report or negative declaration once the Secretary of the Resources Agency has certified the regulatory program. SCAQMD's regulatory program was certified by the Secretary of the Resources Agency on March 1, 1989, and is codified as SCAQMD Rule 110.

CEQA and Rule 110 require that potential adverse environmental impacts of proposed projects be evaluated and that feasible methods to reduce or avoid significant adverse environmental impacts of these projects be identified. To fulfill the purpose and intent of CEQA, the SCAQMD has prepared this ~~Draft~~ Final EA to address the potential adverse environmental impacts associated with the proposed project. The ~~Draft~~ Final EA is a public disclosure document intended to: (a) provide the lead agency, responsible agencies, decision makers and the general

public with information on the environmental effects of the proposed project; and, (b) be used as a tool by decision makers to facilitate decision making on the proposed project.

SCAQMD’s review of the proposed project shows that the proposed project would not have a significant adverse effect on the environment. Therefore, pursuant to CEQA Guidelines §15252, no alternatives or mitigation measures are required to be included in this Draft Final EA. The analysis in Chapter 2 supports the conclusion of no significant adverse environmental impacts.

Comments received on the Draft Final EA during the public comment period will be addressed in the Final EA.

PROJECT LOCATION

PAR 1133.1 and PR 1133.3 would affect greenwaste chipping and grinding operations and greenwaste composting operations in the District. The SCAQMD has jurisdiction over an area of 10,473 square miles, consisting of the four-county South Coast Air Basin (Basin) and the Riverside County portions of the Salton Sea Air Basin (SSAB) and the Mojave Desert Air Basin (MDAB) referred to hereafter as the district. The Basin, which is a subarea of the district, is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The 6,745 square-mile Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The Riverside County portion of the SSAB and MDAB is bounded by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley. The federal non-attainment area (known as the Coachella Valley Planning Area) is a subregion of both Riverside County and the SSAB and is bounded by the San Jacinto Mountains to the west and the eastern boundary of the Coachella Valley to the east (Figure 1-1).



Figure 1-1
Boundaries of the South Coast Air Quality Management District

PROJECT OBJECTIVE

The main objective of PAR 1133.1 and PR 1133.3 is to achieve further emission reductions of VOCs and ammonia from greenwaste chipping and grinding operations and greenwaste composting operations. PAR 1133.1 would establish best management practices (BMPs) to better manage stockpile operations associated with chipping and grinding activities, which is consistent with current greenwaste material processing requirements established in Title 14 of the California Code of Regulations (CCR). PAR 1133.3 would implement Control Measure (CM) MCS-04 of the 2007 Air Quality Management Plan (AQMP) and would seek to establish operational BMPs for greenwaste composting operations that produce active or finished compost material from greenwaste-only or greenwaste in combination with manure or foodwaste. Facilities processing large volumes of foodwaste would be required to install controls capable of reducing VOC and ammonia emissions by 80 percent or more.

EMISSION EFFECTS OF PAR 1133.1 AND PR 1133.3

Using baseline emission factors for greenwaste composting operations for the 17 existing greenwaste composting facilities, the total actual throughput, the proposed 48 hour retention time, and estimated emission reductions for finished compost cover and water irrigation, up to 0.9 tons of VOC and 0.1 tons of ammonia per day would be reduced with the implementation of PR 1133.3. PAR 1133.1 also has the 48 hour material holding time requirement, which is tighter than the previous holding time requirements of Rule 1133.1. The amended 48 hour holding requirement is to conform to that of the existing state regulation (Title 14) which is currently enforced by the county-level Local Enforcement Agency (LEA). As the 48 hour requirement is already enforced by the LEA, no emission reductions are quantified relative to PAR 1133.1.

PROJECT BACKGROUND

Organic materials comprise about 40 percent of California's waste stream. Diverting a high percentage of these materials is key to the state achieving and maintaining the diversion goals of the California Integrated Waste Management Act (AB939, Sher, Chapter 1095, Statutes of 1989 as amended [IWMA]). Pursuant to AB939, composting has been promoted statewide to achieve waste diversion goals. Composting is a good mitigation measure for greenhouse gas (GHG) emissions reduction, as well. Much smaller quantities of methane are emitted from aerobic composting than from uncontrolled anaerobic decomposition. Good composting practices, which balance the carbon-to-nitrogen (C:N) ratio and provide adequate aeration and moisture, will minimize VOC, ammonia, and GHG emissions.

Greenwaste composting is a source of ammonia, a PM_{2.5} precursor, and VOCs, an ozone precursor. Biogenic VOCs also act as a precursor gas to form secondary aerosols. Ammonia can be emitted from improperly managed composting piles and act as a precursor gas to form secondary aerosols. Annually, over 12 million tons of compostable organic materials, such as foodwaste and landscape trimmings, are sent to California landfills. In 2006, methane emissions from composting (primarily of greenwaste and food scraps from residential and commercial establishments) in the U.S. were estimated to be 75 gigagrams (Gg), which accounts for only 1.3 percent of 5,985 Gg of the landfill methane emissions. In the South Coast, gas recovery control systems have been required to be employed for decades at landfills. These systems effectively collect VOC and methane emissions. As a result, landfill emissions are well controlled in the

SCAB. Diverting organic materials helps return valuable nutrients to the soil, improves plant productivity, and helps reduce water usage, erosion, and chemical use.

The following is a summary of the regulatory programs that are applicable or pertinent to the greenwaste composting industry.

Federal Programs

Resource Conservation and Recovery Act

In 1976, Congress enacted the Resource Conservation and Recovery Act (RCRA), an amendment to the 1965 Solid Waste Disposal Act. RCRA calls for conservation of energy and natural resources, waste reduction, and environmentally sound waste management practices. In addition, RCRA encourages states to develop plans for non-hazardous industrial solid waste and municipal solid waste (MSW) management, sets criteria for MSW landfills, as well as for other solid waste disposal facilities, and prohibits the open dumping of solid waste. Congress delegated authority to U.S. EPA to develop scientific regulations to implement the requirements of RCRA. Solid waste regulations have been promulgated in the Code of Federal Regulations under Title 40, Chapter I, Subchapter I, Parts 240-282 (40 CFR Parts 240-282).

Sewage Sludge Disposal Standards

U.S. EPA promulgated standards for the use or disposal of sewage sludge in Title 40, Chapter I, Subchapter O, Part 503 of the Code of Federal Regulations (40 CFR Part 503). 40 CFR Part 503 contains requirements for the control of pathogens, vectors, and heavy metal for sludge composting operations. To qualify as Class A compost, Appendix B to Part 503 – Pathogen Treatment Process, generally requires processes to further reduce pathogens (PFRP). PFRP requires that open windrow composting maintain the temperature of the compost at 131 degrees Fahrenheit or higher for 15 days or longer, and during this time there must be a minimum of five turnings of the windrows. For in-vessel or aerated static pile (ASP) composting, the PFRP requires the active pile temperature be at least 131 degrees Fahrenheit or higher for three days. This process assures that virtually all human pests and pathogens are destroyed. Since food residuals contain human pathogens, fungi and bacteria, this PFRP should be met when foodwaste is being mixed with greenwaste for composting.

State Programs

California State Legislature: California Integrated Waste Management Act

Recognizing landfill limitations (i.e., capacity and siting) and the need for integrated waste management practices, in 1989, the California state legislature passed Assembly Bill (AB) 939 – California Integrated Waste Management Act into law, which was incorporated into the California Public Resources Code, Division 30. Cities and counties were mandated to achieve a total waste diversion of 25 percent by 1995 and to meet a total waste diversion of 50 percent every year.

CalRecycle (formerly California Integrated Waste Management Board, CIWMB)

In April 2003, the then CIWMB promulgated a set of regulations governing composting operations and facilities. The CIWMB currently regulates approximately 87 composting facilities operating in California in accordance with the California Code of Regulations, Title 14, Division 7, Chapter 3.1 – Composting Operations Regulatory Requirements (Chapter 3.1). The

Chapter 3.1 has requirements of handling compostable materials including, but not limited to, material residence time at facilities, temperature requirement to prevent inadvertent decomposition. This Chapter also has a pathogen reduction requirement that requires open windrow composting maintain the temperature of the pile at 131 degrees Fahrenheit or higher for at least 15 days or longer during which windrows must be turned at a minimum of five times. Depending on the type of composting materials and the throughput, affected facilities are required to obtain a ~~Registration Permit, a Standardized Composting Permit, Notification~~ or a Full Solid Waste Facilities Permit (Full Permit) that are issued by local enforcement agencies (LEAs), such as the environmental health departments. There are also requirements for green material composting operations and facilities, as well as an Odor Impact Minimization Plan (OIMP).

2007 Strategic Directive 6.1

In 2007, the CIWMB adopted Strategic Directive 6.1, which in addition to the diversion required under AB 939, seeks an additional 50 percent of organics diverted from landfills by 2020, in accordance with the waste management hierarchy and in support of the California Global Warming Solutions Act of 2006. The CIWMB has estimated that meeting Strategic Directive 6.1 may require 50 to 100 new organics processing facilities (or equivalent expansion of existing facilities) that produce compost, biofuels, and/or bioenergy; increased development of product standards and increased procurement by private and public entities; and resolution of cross-agency regulatory issues.

Regional Water Quality Control Board

The Regional Water Quality Control Board (RWQCB) enforces EPA-issued National Pollutant Discharge Elimination System (NPDES) permits. In addition, the RWQCB focuses on wastewater generation, water demand, the capacity of existing or planned stormwater drainage systems and potential new sources of polluted run-off, and potential depletion of groundwater supplies or interference with groundwater recharge. In the case of composting facilities, the RWQCB has required various composting sites to be graded, paved, and surrounded by berms and other drainage-related protections to prevent run-off and the leaching of chipped and ground materials into the groundwater.

Local Programs

There are several local requirements that may apply to greenwaste composting operations. Specifically, these requirements focus on air, land use and solid waste issues. The following is a summary of these requirements.

SCAQMD Rule Requirements

Currently, operators of chipping/grinding operations at greenwaste composting facilities are required to comply with SCAQMD Rules 402 – Nuisance, 403 – Fugitive Dust, and 203 – Permit to Operate for equipment that require permits. In addition, greenwaste composting operations are required to comply with District Rules 1133 – General Administration, and 1133.1 – Chipping and Grinding. However, none of these rules establish specific control requirements to reduce VOC and ammonia emissions from greenwaste composting operations.

Local Enforcement Agency Requirements

There are several different local (i.e., city or county) enforcement agencies or LEAs that act as either the permitting or enforcement division of the CIWMB (now known as CalRecycle), depending on the throughput and type of compostable materials. For example, the local department of health services, on behalf of the CIWMB, issues Registration, Standardized, and Full Permits depending on the size of throughput and enforces the requirements in these permits. For either type of permit scenario, the LEAs are responsible for handling and investigating complaints from composting and chipping/grinding operations. Pursuant to Health and Safety Code Section 41705, composting operations are exempt from SCAQMD odor regulations; SCAQMD must refer odor complaints to the LEA.

Local Governments

Local government zoning ordinances determine where composting activities can occur. In addition, local governments grant conditional use permits if the jurisdiction has determined that special conditions and approvals are necessary.

PROJECT DESCRIPTION

Proposed Amended Rule 1133.1

PAR 1133.1 would establish best management practices (BMPs) to better manage stockpile operations associated with chipping and grinding activities, which is consistent with current greenwaste material processing requirements established in Title 14 of the California Code of Regulations (CCR). This proposed amended rule applies to the operators of chipping and grinding activities, including stockpile operations, ~~taking place at facilities that accept greenwaste and do not~~ produce material other than active or finished compost, unless otherwise exempted.

Foodwaste Management

Rule 1133.1 is proposed to be amended to clarify that foodwaste cannot be accepted at chipping and grinding facilities unless facilities are allowed by the LEA to handle foodwaste. All conditions and requirements should be described on the facility permit issued by the LEA.

Stockpile Operations

Under PR 1133.3, once greenwaste is received at the chipping and grinding facility, the operator shall chip or grind and utilize on-site or remove curbside, non-curbside or mixed greenwaste from the site within 48 hours of receipt, excluding official federal and state holidays, or up to seven days maximum with approval from the LEA. ~~, unless permitted by the LEA to hold the material for a longer period of time.~~ This requirement harmonizes the rule provisions with Title 14, Division 7, Chapter 3.1, Section 17852 (a)(10)(A)(2) of the CCR. Chipped or ground materials shall not be stockpiled, but be “utilized” for other purposes, including, but not limited to, daily landfill cover, land application, mulch and erosion control, or be removed from the site, such as for landfill ADC, within the applicable allotment of time.

Recordkeeping

All the operational records are required to be maintained for the prior five years of operation, with the most recent two years retained at the facility, which shall be immediately available upon

request. The remaining three years of records shall be made available within one week of request.

Exemptions

Existing exemptions still apply to material derived and utilized on site, as well as portable chipping and grinding, agricultural chipping and grinding, landclearing chipping and grinding, woodwaste chipping and grinding, and palm chipping and grinding activities. In this amendment, the operator of a landfill or biomass power generation facility would be exempt from the requirements of maintaining operation-specific records on-site, provided that the operator does not perform chipping and grinding of greenwaste on-site. Rule elements pertaining to moisture content remain unchanged.

Proposed Rule 1133.3

PAR 1133.3 would implement CM MCS-04 of the 2007 AQMP and would seek to establish operational BMPs for greenwaste composting operations that produce active or finished compost material from greenwaste-only or greenwaste in combination with manure or foodwaste. The proposed rule would focus on stockpile and composting operations of greenwaste and/or foodwaste at all new and existing composting facilities that are either registered for a notification tier or permitted by the LEA to conduct composting operations. The level of requirements would depend on the annual amount of foodwaste being composted.

Operations Processing Greenwaste and/or Foodwaste

Effective upon rule adoption, the operator of greenwaste composting operations would be required to chip or grind and use greenwaste for on-site composting or remove greenwaste from the site ~~within 48 hours of receipt, unless otherwise as~~ allowed by the LEA, ~~for a longer period of time. This requirement is consistent with the requirement of PAR 1133.1, pursuant to paragraph (d)(2) and conforming to the state regulation pursuant to Title 14 Division 7, Chapter 3.1, Section 17852 (a)(10)(A)(2) of the CCR.~~ In addition, foodwaste should be used for on-site composting within 48 hours of receipt or cover the foodwaste with screened or unscreened finished compost until used, unless otherwise required by the LEA.

Operations Processing Greenwaste Only, Greenwaste with up to 20 Percent Manure by Volume, or Greenwaste with up to 5,000 Tons per Year of Foodwaste

- Allowance of Manure or Foodwaste

Up to 20 percent manure by volume, or up to 5,000 tons per year of foodwaste, would be allowed to be integrated into greenwaste composting. Installing an emission control device is not required below these levels.

For the purpose of this proposed rule, up to 20 percent manure, by volume, integrated into greenwaste is considered greenwaste composting. This percent limit is already allowed in Rule 1133.2 – Emission Reductions from Co-Composting Operations (adopted in January 2003), because it was difficult for agricultural farm composters to completely separate horse manure from horse bedding materials for composting. However, other kinds of animal manure would also be allowed under PR 1133.3. More than 20 percent manure, by volume, would not be considered as greenwaste composting. It would be considered as co-composting and such operations would be subject to Rule

1133.2. Up to 5,000 tons per year of foodwaste can be integrated for greenwaste composting as well. The amount of foodwaste to be included is based on an annual facility tonnage throughput basis, while the amount of manure is based on a pile volume basis.

- *Rule Requirements: Finished Compost Cover and Watering*

Every initial (or first formation of) an active phase pile is required to be covered with finished compost within three hours of initial pile formation such that the top is six inches thick and the pile is not turned for the first seven days of the active phase period of composting. Tests have shown the emissions primarily escape from the top one third of the pile. Having a six inch compost cover at the top ensures the pile is adequately covered.

Tests have shown that a vast majority of VOC emissions (80 percent) are produced during the first 15 day active phase period of composting. In particular, the emissions tend to spike within the first three to seven days of the active phase of composting and then diminish over time. According to a San Joaquin APCD study³, about 53 percent of VOC emission reductions were achieved with six inches of finished compost layer applied upon initial pile formation and each subsequent turning during the first 22 day active phase composting. VOC is a biodegradable chemical and is adsorbed on the finished compost layer, and is further broken down by the microbes living on the surface of the finished compost. To minimize facility impacts, the compost cover is only proposed for initial pile formation and the pile is not to be turned for seven days unless needed to manage temperature or for pathogen reduction.

Additional watering is proposed as a subsequent requirement following finished compost cover to reduce VOC and ammonia emissions from turned compost piles. For the first 15 days after initial pile formation for the active phase period of composting, water is to be applied as necessary to the surface area of all active phase piles within three hours before subsequent turning such that the pile is wet to a depth of three inches. The top one half of the pile must always be wet down to a three inch depth. Alternatively, the operator may apply water during turning using a windrow turner equipped with water spraying technology during the entire windrow turning process.

According to a composting mitigation measure study⁴, the surface irrigation could help reduce VOC emissions from greenwaste compost piles by 24 percent. VOC emitted from composting of organic wastes consists of biodegradable and water-soluble light alcohols to some extent. VOC entrapped inside the pile as a result of biological decomposition of organic material is emitted to the air when the pile is turned. As water is applied to the surface area, the water layer of the pile absorbs water-soluble VOC and emission reductions occur. Because only the top three inches of the pile irrigated becomes wet, there would be no water run-off problems associated with additional watering.

³ SJVAPCD, 2010a. Comparison of Mitigation Measures for Reduction of Emissions Resulting from Greenwaste Composting, Project 09-01 CCOS Draft Final Report.

If a rain event occurs prior to watering the pile and the pile is wet to a depth of three inches, the operator may turn the pile without adding additional water.

It is recommended that the operator conduct a ball test using hand pressure to evaluate if the pile is “wet” enough before turning. No additional watering would be required if the compostable material contains enough moisture to form a ball when compressed by hand, but may break when tapped, at least three inches depth from the peak of a pile. If the ball crumbles upon release of the hand pressure test, additional water would be required to apply to the pile until the requirement is met. This may also apply to a normal operating condition. If the pile is sufficiently wet down to a three inch depth within three hours before turning during non-rain, normal operations, additional watering may not be required. If the pile needs to be turned within the first seven days for maintaining temperature at or above 131 degrees Fahrenheit for pathogen reduction pursuant to Title 14, Division 7, Chapter 3.1, Section 17868.3 of the CCR, the operator does not need to re-apply the finished compost cover and should apply additional water to the pile as described in this section.

An alternate method may be implemented by the operator, provided that the measure is approved by the Executive Officer, California Air Resources Board, and the United States Environmental Protection Agency, and it is demonstrated that equivalent or greater emission reductions are achieved of at least 40 percent, by weight, for VOC and of at least 20 percent, by weight, for ammonia for combined finished compost cover and water application.

For Operations Processing Greater than 5,000 Tons per Year of Foodwaste by Weight

- *Emission Control Device Achieving Overall Control Efficiency Greater than or Equal to 80 Percent*

For a facility that accepts greater than 5,000 tons per year of foodwaste, the operator would be required for all composting including foodwaste to install an emission control device with an overall system control efficiency of at least 80 percent by weight, each for VOC and ammonia, for all active phase compost piles processing foodwaste. Such equipment is required only for the 22 day active phase period of composting and not required for the curing phase. At the end of the first 22 day active phase composting, emissions are diminished over 90 percent^{4, 5}. Thus, requiring such equipment for curing phase would not add significant emission reductions but may increase operational costs. The operator may implement a control alternative, if approved by the Executive Officer, California Air Resources Board, and the U.S. EPA, to achieve VOC and ammonia emission reductions equivalent to or greater than the required reductions. It should be

⁴ SJVAPCD, 2010b. Compost VOC Emission Factors, San Joaquin Valley Air Pollution Control District, September 15, 2010.

⁵ NorCal Waste Systems, 2006. Emissions Evaluation of Complete Compost Cycle VOC and Ammonia Emissions, Air Emissions Source Test Report, May 2006.

noted that a facility need not control composting of greenwaste only, but rather any composting involving foodwaste.

Any emission control system, such as forced aeration with biofilter, should be designed and operated such that an overall control efficiency of at least 80 percent is achieved for VOC and ammonia, respectively, from the baseline emission factors or alternate baseline emission factors. The overall control efficiency includes both the capture efficiency and destruction efficiency.

- Permit Application

A permit would be required for an emission control device for any new or existing greenwaste composting operations processing greater than 5,000 tons per year of foodwaste. All new greenwaste composting operations would be required to obtain a permit for such equipment before construction. Existing greenwaste composting operations that plan to process greater than 5,000 tons per year of foodwaste would also have to obtain a permit for the equipment before processing greater than that amount. Existing greenwaste composting operations that currently process greater than 5,000 tons per year of foodwaste would be required to file a permit application within three months of rule adoption and implement such equipment within six months upon approval of the permit application. However, based on staff research of greenwaste composting facilities located within the District, no existing facilities are expected to be required to install an emission control device based on their current operations.

Any aeration system and its associated emission control device would need a separate permit for each. ~~Any aeration system or emission control device would be integrated to the same permit.~~ Depending on the configuration of an emission control system, emission controls may be accomplished without the need of venting the exhaust air to a separate air pollution control device, such as a biofilter. The configuration of such equipment should be described in detail in the permit application.

- Source Testing

Under the proposed rule, all permitted emission control devices would be demonstrated through an approved source test for an overall control efficiency of at least 80 percent by weight for VOC and ammonia emissions, respectively. The source test needs to be conducted within three months after start-up of the equipment, or within nine months of permit approval, whichever occurs sooner, and every three years thereafter. Existing equipment already tested would need to conduct future source tests every three years from the initial source test.

- Operation and Maintenance

Proper operation and maintenance would be required for an installed emission control system to ensure maximum emissions control. All permitted equipment should be installed, operated and maintained in accordance with the manufacturer's operation and maintenance manual or other similar written materials supplied by the manufacturer or distributor to ensure proper operating conditions.

Test Methods and Protocol

For operations subject to the requirements of an air pollution control device, the operator would be required to conduct all required source and laboratory tests using the Executive Officer approved test protocol developed in accordance with the guidelines provided in Attachment A of PR 1133.3. A District approved laboratory must be used for the associated tests.

Recordkeeping

All operational and informational records, including operation and maintenance of the control system and source tests, should be maintained for the prior five years of operation, with the most recent two years retained at the facility, which shall be immediately available to the Executive Officer upon request. The remaining three years of records shall be made available to the Executive Officer within one week of request.

Exemptions

- Composting facilities subject to Rule 1133.2 – Emission Reductions from Co-Composting Operations, are exempt from the provisions of this rule.
- If the operator of any greenwaste composting operation voluntarily installs an emission control device, the provisions of additional irrigation and the finished compost cover and associated recordkeeping requirements do not apply.
- To be consistent with exemptions in Rule 1133 – Composting and Related Operations – General Administrative Requirements, the following type of facilities and operations are exempt from the provisions of PR 1133.3, provided that the operator is not subject to the Local Enforcement Agency Notification or Permit regulations pursuant to Title 14 Division 7, Chapter 3.1, Section 17857.1 of the CCR:
 - Community composting
 - Nursery composting
 - Backyard composting
 - Recreational facility composting

CHAPTER 2 - ENVIRONMENTAL CHECKLIST

Introduction

General Information

Environmental Factors Potentially Affected

Determination

Environmental Checklist and Discussion

INTRODUCTION

The environmental checklist provides a standard evaluation tool to identify a project's potential adverse environmental impacts. This checklist identifies and evaluates potential adverse environmental impacts that may be created by the proposed project.

GENERAL INFORMATION

Project Title: ~~Draft Final~~ Environmental Assessment (EA) for Proposed Amended Rule (PAR) 1133.1 – Chipping and Grinding Activities and Proposed Rule (PR) 1133.3 – Emission Reductions from Greenwaste Composting Operations

Lead Agency Name: South Coast Air Quality Management District

Lead Agency Address: 21865 Copley Drive
Diamond Bar, CA 91765

CEQA Contact Person: Mr. Jeffrey Inabinet (909) 396-2453

PARs 1162 and 1132 Contact Person: Dr. Jong Hoon Lee (909) 396-3903

Project Sponsor's Name: South Coast Air Quality Management District

Project Sponsor's Address: 21865 Copley Drive
Diamond Bar, CA 91765

General Plan Designation: Not applicable

Zoning: Not applicable

Description of Project: PAR 1133.1 would establish the best management practices (BMPs) for chipping and grinding activities, including stockpile operations, to produce materials other than active or finished compost material. PAR 1133.1 would establish requirements for processing, utilizing or removing greenwaste from the site within 48 hours of receipt, unless otherwise allowed by the Local Enforcement Agency to hold for a longer period of time. PAR 1133.1 would apply to any chipping and grinding activities to produce materials other than active or finished compost, occurring at a chipping and grinding facility, a material recovery facility (MRF), a landfill using this material for alternative daily cover (ADC), a transfer station, a biomass power generation facility, or a composting facility. PR 1133.3 would implement Control Measure (CM) MCS-04 of the 2007 Air Quality Management Plan (AQMP) and seeks to establish operational BMPs for greenwaste composting operations that produce active or finished compost material from greenwaste-only or greenwaste in combination with manure or foodwaste. Operators of a greenwaste composting operations would be required to apply finished compost cover after the initial pile is formed and up to the minimum of seven days and water irrigation within a specified time before turning the material for all active phase piles. Additionally, for greenwaste composting operations processing greenwaste mixed with greater than 5,000 tons per year of foodwaste throughput, the operator would be required to install an emission control device for all active phase compost piles containing foodwaste content of 10% or more by weight. PR 1133.3 would apply to greenwaste composting operations involving organic waste materials, including greenwaste, woodwaste, manure, or foodwaste.

Surrounding Land Uses and Setting: Not applicable

Other Public Agencies Whose Approval is Required: Not applicable

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The following environmental impact areas have been assessed to determine their potential to be affected by the proposed project. As indicated by the checklist on the following pages, environmental topics marked with an "✓" may be adversely affected by the proposed project. An explanation relative to the determination of impacts can be found following the checklist for each area.

- | | | |
|--|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture Resources | <input checked="" type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology/Soils | <input type="checkbox"/> Hazards & Hazardous Materials | <input checked="" type="checkbox"/> Hydrology/
Water Quality |
| <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Solid/Hazardous Waste | <input type="checkbox"/> Transportation/
Traffic | <input type="checkbox"/> Mandatory
Findings of
Significance |

DETERMINATION

On the basis of this initial evaluation:

- I find the proposed project, in accordance with those findings made pursuant to CEQA Guideline §15252, COULD NOT have a significant effect on the environment, and that an ENVIRONMENTAL ASSESSMENT with no significant impacts will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will NOT be significant effects in this case because revisions in the project have been made by or agreed to by the project proponent. An ENVIRONMENTAL ASSESSMENT with no significant impacts will be prepared.
- I find that the proposed project MAY have a significant effect(s) on the environment, and an ENVIRONMENTAL ASSESSMENT will be prepared.
- I find that the proposed project MAY have a "potentially significant impact" on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL ASSESSMENT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL ASSESSMENT pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL ASSESSMENT, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Date: ~~June 1~~ July 8, 2011

Signature: _____

Steve Smith

Steve Smith, Ph.D.
Program Supervisor

ENVIRONMENTAL CHECKLIST AND DISCUSSION

As discussed in Chapter 1, PAR 1133.1 would establish BMPs for chipping and grinding operations taking place at facilities that accept greenwaste consistent with Title 14 and produce materials other than active or finished compost, unless otherwise allowed by the local enforcement agency (LEA), pursuant to Title 14, for a longer period of time. PAR 1133.1 would also establish maximum holding time of raw greenwaste material. PAR 1133.1 would apply not only to any stand-alone facility receiving greenwaste material for chipping and grinding, but also to any facility co-located at a material recovery facility (MRF), a landfill using this material for alternative daily cover (ADC), a transfer station, or a biomass energy production facility. PAR 1133.1 would establish requirements for processing greenwaste for other uses but composting. Under PAR 1133.1, foodwaste is not to be taken by the facility for chipping and grinding unless otherwise allowed by the LEA. In addition, raw greenwaste would be required to be chipped or ground and utilized or removed from the site within 48 hours of receipt or up to seven days maximum with approval from ~~unless otherwise allowed by the LEA.~~

PR 1133.3 would apply to greenwaste composting operations involving organic waste materials, including greenwaste, woodwaste, manure and foodwaste. PR 1133.3 has requirements for the operator to process greenwaste for on-site composting ~~within 48 hours of receipt unless otherwise~~ as allowed by the LEA. ~~to be held for a longer period of time.~~ Foodwaste is also subject to the 48 hour processing time to initiate composting on-site or covered with finished compost until used, unless otherwise required by the LEA. For composting operations of greenwaste-only or greenwaste mixed with up to 20 percent manure, by volume, or up to 5,000 tons per year of foodwaste throughput, operators would be required to cover the initial active phase pile with finished compost within ~~three~~ 24 hours of formation, such that the top is at least six inches thick and the pile is not turned for the first seven days of the active phase of composting, which is followed by additional watering to a three inch depth to the top half of the pile, prior to turning, during the first 15 days of the active phase composting period.

For greenwaste composting operations processing greenwaste mixed with greater than 5,000 tons per year of foodwaste throughput, the operator would be required to install an emission control device achieving a minimum 80 percent control efficiency for all active phase compost piles processing foodwaste. It should be noted that greenwaste composting including greater than 20 percent manure is presently subject to Rule 1133.2 for co-composting operations.

Approximately 70 existing greenwaste chipping and grinding operations or facilities would be subject to the requirements of PAR 1133.1. Based on the assumption that most of these facilities are already in compliance with the proposed amendments to Rule 1133.1, no emission reduction is assumed. PR 1133.3 is applicable to 17 existing greenwaste composting facilities. Based on the emissions inventory compiled for greenwaste compost facilities in the SCAQMD, the total emissions reduction associated with the PR 1133.3 is estimated to be 0.9 tons of VOC and 0.1 tons of ammonia per day.

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

Significance Criteria

The proposed project impacts on aesthetics will be considered significant if:

- The project will block views from a scenic highway or corridor.
- The project will adversely affect the visual continuity of the surrounding area.
- The impacts on light and glare will be considered significant if the project adds lighting which would add glare to residential areas or sensitive receptors.

Discussion

I. a), b), c) & d) PAR 1133.1 or PR 1133.3 is not expected to require any new development or require modifications to buildings or other structures to comply with the new BMPs for chipping and grinding operations and the new requirements for greenwaste composting. It is expected that PAR 1133.1 and PR 1133.3 would not significantly change existing operations at any of the affected facilities. Further, since all of the affected activities already occur within existing facilities, there would be no change to the visual character of the existing setting at any of the existing affected facilities. For the same reason, PAR 1133.1 and PR 1133.3 are not expected to adversely affect scenic vistas or substantially damage scenic resources.

PR 1133.3 may include some construction activities, should the facilities be required to or choose to install control equipment. However, based on current throughput at facilities located within the District, no currently existing facilities would be required to install air pollution control equipment. Such construction activity would not be expected to adversely affect aesthetics.

Additional light or glare would not be created which would adversely affect day or nighttime views in the area since no light generating equipment would be required to comply with the new BMPs for chipping and grinding operations and the new requirements for greenwaste

composting. Similarly, the proposed amended rule does not require nighttime activities at affected facilities.

Based upon these considerations, significant adverse aesthetics impacts are not anticipated and will not be further analyzed in this Draft Final EA. Since no significant adverse aesthetics impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FOREST RESOURCES. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland mapping and Monitoring Program of the California Resources Agency, to non- agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code §12220(g)), timberland (as defined by Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code §51104 (g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

Project-related impacts on agriculture and forest resources will be considered significant if any of the following conditions are met:

- The proposed project conflicts with existing zoning or agricultural use or Williamson Act contracts.
- The proposed project will convert prime farmland, unique farmland or farmland of statewide importance as shown on the maps prepared pursuant to the farmland mapping and monitoring program of the California Resources Agency, to non-agricultural use.
- The proposed project conflicts with existing zoning for, or causes rezoning of, forest land (as defined in Public Resources Code §12220(g)), timberland (as defined in Public Resources

Code §4526), or timberland zoned Timberland Production (as defined by Government Code § 51104 (g)).

- The proposed project would involve changes in the existing environment, which due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use.

Discussion

II. a), b), c) & d) PAR 1133.1 and PR 1133.3 would not require any new development or require modifications to existing buildings or other structures to comply with the new BMPs for chipping and grinding operations and the new requirements for greenwaste composting. All of the affected operations occur within existing facilities, so new land use designations, including agricultural designations, are not expected to be altered by the proposed project. Therefore, since PAR 1133.1 and PR 1133.3 affects operations at existing facilities located only in already zoned areas, it is not expected to convert any classification of farmland to non-agricultural use or conflict with zoning for agricultural use or a Williamson Act contract. The proposed project is not expected to result in the loss of forest land or conversion of forest land to non-forest use.

Based upon these considerations, significant agricultural resource impacts are not anticipated and will not be further analyzed in this Draft Final EA. Since no significant adverse agriculture resources impacts were identified, no mitigation measures are necessary or required.

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

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
f) Diminish an existing air quality rule or future compliance requirement resulting in a significant increase in air pollutant(s)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

To determine whether or not air quality impacts from the proposed project may be significant, impacts will be evaluated and compared to the criteria in Table 2-1. If impacts exceed any of the criteria in Table 2-1, they will be considered further in the *Draft Final EA*. If necessary, all feasible mitigation measures will be identified in the *Draft Final EA* and implemented to reduce significant impacts to the maximum extent feasible.

To determine whether or not greenhouse gas emissions from the proposed project may be significant, impacts will be evaluated and compared to the 10,000 MT CO₂/year threshold for industrial sources.

Discussion

III. a) PAR 1133.1 and PR 1133.3 are intended to benefit air quality and be consistent with, rather than conflict with, or obstruct, the implementation of the SCAQMD's AQMP. The three primary categories of composting operations (e.g. co-composting, greenwaste composting, and chipping and grinding) contribute to a sizeable amount of VOC and ammonia emissions in the District. VOC and ammonia are precursors to ozone and PM_{2.5} emissions, respectively, for which ambient air quality standards are currently exceeded in the South Coast Air Basin. The proposed project is intended to reduce VOC and ammonia emissions from greenwaste composting and minimize VOC and ammonia emissions from inadvertent decomposition associated with stockpiling at chipping and grinding facilities. PR 1133.3 would implement Control Measure MCS-04 of the 2007 AQMP and seeks to establish operational BMPs for greenwaste composting operations that produce finished compost material from greenwaste-only or greenwaste in combination with manure or foodwaste. If a facility chooses to compost large amounts of foodwaste (greater than 5,000 tons per year), an emission control device would be required to be installed. Therefore, the proposed project is consistent with the SCAQMD's air quality goals and objectives for the region.

III. b), c), d) & f) For a discussion of these items, refer to the following analysis.

Air Quality Significance Criteria

To determine whether or not air quality impacts from adopting the proposed rule or amendments are significant, impacts will be evaluated and compared to the criteria in Table 2-1. If impacts equal or exceed any of the criteria in Table 2-1, air quality impacts will be considered significant. All feasible mitigation measures will be identified and implemented to reduce significant impacts to the maximum extent feasible.

**Table 2-1
Air Quality Significance Thresholds⁶**

Mass Daily Thresholds		
Pollutant	Construction	Operation
NOx	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM10	150 lbs/day	150 lbs/day
PM2.5	55 lbs/day	55 lbs/day
SOx	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Toxic Air Contaminants and Odor Thresholds		
Toxic Air Contaminants (TACs) Accidental Release of Acutely Hazardous Materials (AHMs)	MICR \geq 10 in 1 million ; HI \geq 1.0 (project increment) CAA §112® threshold quantities	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
Ambient Air Quality for Criteria Pollutants ^(a)		
NO2 1-hour average annual average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.25 ppm (state) 0.053 ppm (federal)	
PM10 24-hour average annual geometric average annual arithmetic mean	10.4 $\mu\text{g}/\text{m}^3$ (construction) ^(b) & 2.5 $\mu\text{g}/\text{m}^3$ (operation) 1.0 $\mu\text{g}/\text{m}^3$ 20 $\mu\text{g}/\text{m}^3$	
PM2.5 24-hour average	10.4 $\mu\text{g}/\text{m}^3$ (construction) ^(b) & 2.5 $\mu\text{g}/\text{m}^3$ (operation)	
Sulfate 24-hour average	1 $\mu\text{g}/\text{m}^3$	
CO 1-hour average 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) 9.0 ppm (state/federal)	

⁶ CEQA Air Quality Handbook, SCAQMD, www.aqmd.gov/ceqa/hdbk.html.

- (a) Ambient air quality thresholds for criteria pollutants based on SCAQMD Rule 1303, Table A-2 unless otherwise stated.
- (b) Ambient air quality threshold based on SCAQMD Rule 403.

KEY: MICR = maximum individual cancer risk HI = Hazard Index
 $\mu\text{g}/\text{m}^3$ = microgram per cubic meter ppm = parts per million
 AHM = acutely hazardous material; TAC = toxic air contaminant

Greenhouse Gases Significance Thresholds

SCAQMD's adopted interim greenhouse gases (GHG) significance threshold proposal uses a tiered approach to determining significance. Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA. Tier 2 consists of determining whether or not the project is consistent with a GHG reduction plan that may be part of a local general plan, for example. Tier 3 establishes a screening significance threshold level to determine significance using a 90 percent emission capture rate approach, which corresponds to 10,000 metric tons of CO₂ equivalent emissions per year (MTCO₂eq/yr). Tier 4 consists of a decision tree approach that allows the lead agency to choose one of three compliance options based on performance standards, but was not recommended for approval at this time. Under Tier 5 the project proponent would implement offsite mitigation (GHG reduction projects) to reduce GHG emission impacts to less than the proposed screening level. To determine whether or not greenhouse gas emissions from the proposed project may be significant, impacts will be evaluated and compared to the 10,000 MT CO₂/year threshold for industrial sources.

Rule Objective and Facility Applicability

The objectives of PAR 1133.1 and PR 1133.3 are generally to implement maximum holding and processing time requirements for greenwaste chipping and grinding activities in order to minimize ammonia and VOC emissions from inadvertent decomposition associated with stockpiling and to establish new requirements for greenwaste composting.

Approximately 70 existing greenwaste chipping and grinding operations or facilities would be affected by the requirements of PAR 1133.1. Based on the assumption that most of these affected facilities are already in compliance with the proposed amendments to Rule 1133.1, no emission reduction is assumed. PR 1133.3 is applicable to 17 existing greenwaste composting facilities. Based on the emissions inventory compiled for greenwaste compost facilities in the SCAQMD, The total emissions reduction associated with the PR 1133.3 is estimated to be 0.9 tons of VOC and 0.1 tons of ammonia per day.

Construction Air Quality Impacts – Criteria Pollutants

PAR 1133.1 and 1133.3 would incorporate new BMPs for chipping and grinding operations and the new requirements for greenwaste composting. For greenwaste composting operations processing greenwaste mixed with greater than 5,000 tons per year of foodwaste, the operator would be required to install an emission control device for all active phase compost piles processing foodwaste. Based on staff research and industry input from greenwaste composting facilities located within the District, two facilities currently compost with foodwaste. However, these facilities compost less than half of the threshold amount. Therefore, no existing facilities are expected to be required to install an emission control device without significant increases of foodwaste throughput on an annual basis. However, as a worst case scenario, construction emission calculations were conducted for the installation of emission control equipment and an associated concrete pad at all 17 affected facilities. Based on information obtained from emission control system vendors, the systems would most likely consist of pre-fabricated

equipment that would be delivered to the facility. Therefore, the construction impacts analyzed include:

- Delivery of the pre-fabricated control equipment to the facility
- Placement of pre-fabricated control equipment into place at the facility
- Compaction and surfacing of 150-foot by 150-foot concrete pad for composting operations
- Supply concrete for pad, two concrete walls/berms and footings for blowers

Table 2-2 summarizes the peak construction emissions due to construction of an emission control system and associated concrete pad at the affected facilities. Construction air quality impacts do not exceed any applicable significance thresholds. Therefore, construction air quality impacts are concluded to be less than significant.

**Table 2-2
Peak Construction Emissions Due to Installation of an Emission Control System and
Associated Concrete Pad**

PEAK CONSTRUCTION	VOC	CO	NOx	SOx	PM10	PM2.5
	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
Total Emissions	2.41	11.25	15.57	0.02	0.95	0.91
SIGNIFICANCE THRESHOLD	75	550	100	150	150	55
SIGNIFICANT?	NO	NO	NO	NO	NO	NO

A detailed construction emissions spreadsheet including construction estimates and assumptions is located in Appendix C.

Operational Air Quality Impacts - Criteria Pollutants

PAR 1133.1 and PR 1133.3 would incorporate new BMPs for chipping and grinding operations and the new requirements for greenwaste composting. No operational air quality impacts are expected to occur as a result of the implementation of PAR 1133.1 BMPs that are not already occurring. Per PR 1133.3, for composting operations of greenwaste-only or greenwaste mixed with up to 20 percent manure, by volume, or up to 5,000 tons per year of foodwaste, operators would be required to cover each initial active phase pile with finished compost within ~~three~~ 24 hours of initial pile formation, such that the top is at least six inches thick and the pile is not turned for the first seven days of the active phase of composting, which is followed by additional watering on the top half of the pile to a three inch depth to the pile, prior to turning, during the 15 days of the active phase of composting.

Operational emission calculations were conducted for the incremental increase in loader usage to place the finished compost cover on the initial active phase compost piles at the affected facilities. As a worst case scenario, it was assumed that all 17 affected facilities would be starting a new composting cycle on the same day and placing the finished compost cover on their piles.

Table 2-3 summarizes the peak operational emissions due to the incremental increase of loader usage in order to place the finished compost cover at the affected facilities. Operational air quality impacts do not exceed any applicable significance thresholds. Therefore, operational air quality impacts are concluded to be less than significant.

**Table 2-3
Peak Operational Emissions Due to Incremental Increased Loader Usage to Place Finished
Compost Cover**

PEAK CONSTRUCTION	VOC	CO	NO _x	SO _x	PM10	PM2.5
	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
Total Emissions	2.98	130	23.7	0.03	1.34	1.34
SIGNIFICANCE THRESHOLD	75	550	55	150	150	55
SIGNIFICANT?	NO	NO	NO	NO	NO	NO

A detailed operational emissions spreadsheet including loader usage estimates and assumptions is located in Appendix D.

The proposed project is intended to reduce VOC and ammonia emissions from greenwaste composting and minimize VOC and ammonia emissions from inadvertent decomposition associated with stockpiling at chipping and grinding facilities. Any operational modifications or site changes initiated to comply with PAR 1133.1 or PR 1133.3 will occur within the boundaries of an existing facility. Throughput at affected facilities is not expected to change from current operational levels in the near future, but with landfill closures and increased demand in the coming years, throughput may increase. However, based on the operational emission calculations, the amount of throughput could nearly double before NO_x levels would exceed the significance threshold. As a result, no operational criteria pollutant air quality impacts are expected to occur from the proposed project. Therefore, potential criteria pollutant air quality impacts will not be considered further in this Draft Final EA.

Operational Air Quality Impacts - Toxic Air Contaminants

In assessing potential impacts from the adoption of proposed rule and amendments, SCAQMD staff not only evaluates the potential air quality benefits, but also determines potential health risks associated with implementation of the proposed amendments.

As stated previously, PAR 1133.1 and PR 1133.3 would incorporate new BMPs for chipping and grinding operations and new requirements for greenwaste composting. No change in the current waste streams that the affected facilities are currently accepting is expected to occur (with the possible exception of a potential slight increase in food waste at several of the affected facilities). Therefore, no changes in toxicity are expected. As a result, there will be no increase in toxic air contaminant emissions from the affected facilities due to the proposed rule or amendments.

Conclusion

Based on staff research of greenwaste composting facilities located within the District, no existing facilities are expected to be required to install an emission control device. The two facilities currently composting with foodwaste would have to more than double their existing annual throughput to exceed the 5,000 tons per year threshold level. However, as a worst case scenario, construction emission calculations were conducted for the installation of emission control equipment and an associated concrete pad at each of the 17 facilities. Based on this

analysis, construction air quality impacts do not exceed any applicable significance thresholds. As a result, no construction air quality impacts are expected to occur from the proposed project.

Since operators would be required to cover each active phase pile with finished compost within three hours of initial pile formation, operational emission calculations were conducted for the incremental increase in loader usage at the affected facilities. Based on this analysis, which includes all facilities starting a new composting cycle on the same day, operational air quality impacts do not exceed any applicable significance thresholds. Therefore, operational air quality impacts are concluded to be less than significant. Additionally, no change in the current waste streams that the affected facilities are currently accepting is expected to occur (with the possible exception of a potential slight increase in food waste at several of the affected facilities, based on future city contracts relative to diversion goals). As a result, no operational criteria pollutant or toxic air contaminant air quality impacts are expected to occur from the proposed project. Significant adverse air quality impacts to sensitive receptors are not expected from implementing PAR 1133.1 and PR 1133.3.

III. e) Historically, the SCAQMD has enforced odor nuisance complaints through SCAQMD Rule 402 - Nuisance. The proposed project requires operational modifications to reduce VOC and ammonia emissions from greenwaste composting facilities and maximum holding and processing time requirements for greenwaste chipping and grinding activities in order to minimize ammonia and VOC emissions from inadvertent decomposition associated with stockpiling. The overall intent of the proposed rules is to improve air quality by controlling VOC and ammonia emissions, which are ozone and PM_{2.5} precursor pollutants. Controlling emissions from decomposition will also reduce odors. The proposed project will not expose sensitive receptors to substantial pollutant concentrations or create objectionable odors affecting a number of people. Odors are enforced by the LEAs per state law.

III. g) & h) Significant changes in global climate patterns have recently been associated with global warming, an average increase in the temperature of the atmosphere near the Earth's surface, attributed to accumulation of GHG emissions in the atmosphere. GHGs trap heat in the atmosphere, which in turn heats the surface of the Earth. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. The emission of GHGs through the combustion of fossil fuels (i.e., fuels containing carbon) in conjunction with other human activities, appears to be closely associated with global warming. State law defines GHG to include CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆. The most common GHG that results from human activity is CO₂, followed by CH₄ and N₂O. The combustion processes affected by the proposed project by the off-road equipment and on-road vehicles during the construction phase of the project will generate GHG emissions, primarily CO₂ and CH₄, which are evaluated in the following paragraphs. Other GHGs cannot be analyzed at this time because emission factors are not currently available or they are not associated with construction or boiler combustion emissions. Specifically, the following analysis focuses on directly emitted CO₂ and CH₄ emissions because these are the primary GHG pollutants emitted during the combustion process and are the GHG pollutants for which emission factors are most readily available. CO₂ and CH₄ emissions were estimated using emission factors from CARB EMFAC2007 and Off-Road 2007 models and EPA's AP-42. The GWP was applied to the CH₄ emissions to provide equivalent CO₂ emissions so they can be added and presented as CO₂E emissions. The CO₂ and CH₄ emission factors and calculations can be found in the emission calculation spreadsheets in Appendices C and D .

The analysis of GHGs is a much different analysis than the analysis of criteria pollutants for the following reasons. For criteria pollutants, significance thresholds are based on daily emissions because attainment or non-attainment is based on daily exceedances of applicable ambient air quality standards. Further, several ambient air quality standards are based on relatively short-term exposure effects on human health, e.g., one-hour and eight-hour, etc. Since the atmospheric life of CO₂ is approximately 100 years, for example, the effects of GHGs are longer-term, affecting global climate over a relatively long time frame. As a result, the SCAQMD’s current approach is to evaluate GHG effects over a longer timeframe than a single day.

As previously discussed, based on staff research of greenwaste composting facilities located within the District, no existing facilities are expected to be required to install an emission control device. However, as a worst case scenario, construction emission calculations were conducted for the installation of emission control equipment and an associated concrete pad. Table 2-4 provides the total construction CO₂E emissions that could occur from the installation of emission control equipment and an associated concrete pad at all 17 affected facilities. As shown in Table 2-4, GHG emissions generated by construction activities are expected to be relatively small and, therefore, not significant.

**Table 2-4
Overall CO₂ Equivalent (eq) Increases Due to Construction Activities (metric tons/year)¹**

	CO₂	CH₄	CO₂eq
Annual CO₂eq Emission Increases Due to:	lb/day	lb/day	MT/year
Installing Emission Control System	2,057	.20	17

¹ 1 metric ton = 2,205 pounds

Since operators would be required to cover each active phase pile with finished compost within three hours of initial pile formation, operational emission calculations were conducted for the incremental increase in loader usage at the affected facilities. Table 2-5 provides the total operational CO₂E emissions that could occur from the increased loader usage at all 17 affected facilities. As shown in Table 2-5, GHG emissions generated by operational activities are expected to be relatively small and, therefore, not significant.

**Table 2-5
Overall CO₂ Equivalent (eq) Increases Due to Operational Activities (metric tons/year)¹**

	CO₂	CH₄	CO₂eq
Annual CO₂eq Emission Increases Due to:	lb/day	lb/day	MT/year
Incremental Increase of Loader Usage to Cover Active Phase Piles with Finished Compost Cover	2,389	0.3	960

¹ 1 metric ton = 2,205 pounds

Since GHG emissions are considered cumulative impacts, and the GHG emission increases from construction activities associated with the proposed project are considerably below the 10,000 MT CO₂E per year SCAQMD interim significance threshold for industrial projects, significant

adverse cumulative GHG impacts from the proposed project are not considered significant and, as a result, are not expected to contribute appreciably to climate change. Thus, potential GHG emission impacts from the proposed project will not be a significant contributor to the current global warming or climate change setting.

Therefore, the proposed project is not expected to result in a significant GHG impact on the environment or possibly conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHG. Since there are no significant adverse impacts, no mitigation measures are required.

Conclusion

Based on the preceding discussions, PAR 1133.1 and PR 1133.3 are expected to reduce VOC and ammonia emissions, which is an air quality benefit. The proposal has no provision that would cause a violation of any air quality standard or directly contribute to an existing or projected air quality violation. The lower VOC and ammonia emissions would assist in reducing overall VOC, PM, and ozone concentrations throughout the District. Since VOC and ammonia air quality effects from implementing PAR 1133.1 and PR 1133.3 are seen as benefits, and PAR 1133.1 and 1133.3 would not cause an exceedance of any of the air quality significance thresholds in Table 2-1, air quality impacts are not considered to be cumulatively considerable as defined in CEQA Guidelines §15065(h)(1). The analysis of GHGs also concluded that PAR 1133.1 and PR 1133.3 would not generate significant adverse cumulative GHG impacts. Therefore, the proposed project is not expected to result in significant adverse cumulative impacts for any criteria or GHG pollutant.

Thus, PAR 1133.1 and PR 1133.3 are not expected to result in significant adverse air quality impacts, and mitigation measures are not required.



	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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IV. BIOLOGICAL RESOURCES.

Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) 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, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

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

Significance Criteria

Impacts on biological resources will be considered significant if any of the following criteria apply:

- The project results in a loss of plant communities or animal habitat considered to be rare, threatened or endangered by federal, state or local agencies.
- The project interferes substantially with the movement of any resident or migratory wildlife species.
- The project adversely affects aquatic communities through construction or operation of the project.

Discussion

IV.a), b), c), & d) PAR 1133.1 and PR 1133.3 would not require any new development or require modifications to buildings or other structures to comply with the new BMPs for chipping and grinding operations and the new requirements for greenwaste composting. As a result, PARs PAR 1133.1 and PR 1133.3 would not directly or indirectly affect any species identified as a candidate, sensitive or special status species, riparian habitat, federally protected wetlands, or migratory corridors. For these same reasons, PAR 1133.1 and PR 1133.3 are not expected to adversely affect special status plants, animals, or natural communities.

IV.e) & f) PAR 1133.1 and PR 1133.3 would not conflict with local policies or ordinances protecting biological resources or local, regional, or state conservation plans because they would not cause new development. Additionally, PAR 1133.1 and PR 1133.3 would not conflict with any Habitat Conservation Plan, Natural Community Conservation Plan, or any other relevant habitat conservation plan for the same reason identified in Item IV. a), b), c), and d) above. Likewise, the rules would not in any way impact wildlife or wildlife habitat.

The SCAQMD, as the Lead Agency for the proposed project, has found that, when considering the record as a whole, there is no evidence that the proposed project will have potential for any new adverse effects on wildlife resources or the habitat upon which wildlife depends. Accordingly, based upon the preceding information, the SCAQMD has, on the basis of substantial evidence, rebutted the presumption of adverse effect contained in §753.5 (d), Title 14 of the California Code of Regulations.

Based upon these considerations, significant adverse biological resources impacts are not anticipated and will not be further analyzed in this Draft Final EA. Since no significant adverse biological resources impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource, site, or feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

Impacts to cultural resources will be considered significant if:

- The project results in the disturbance of a significant prehistoric or historic archaeological site or a property of historic or cultural significance to a community or ethnic or social group.
- Unique paleontological resources are present that could be disturbed by construction of the proposed project.
- The project would disturb human remains.

Discussion

V. a), b), c), & d) PAR 1133.1 and PR 1133.3 would not require any new development or require modifications to buildings or other structures to comply with the new BMPs for chipping and grinding operations and the new requirements for greenwaste composting. All of the affected activities occur within existing facilities. No construction is expected for any currently existing facility to meet the requirements of PAR 1133.1 and PR 1133.3. As a result, no impacts to historical resources are anticipated to occur as a result of implementing the proposed project. PAR 1133.1 and PR 1133.3 are not expected to require physical changes to the environment, which may disturb historical, paleontological or archaeological resources. Since there is no expected construction on previously undisturbed areas related to PAR 1133.1 and PR 1133.3, the proposed project is not expected to disturb any human remains.

Based on staff research of greenwaste composting facilities located within the District, no existing facilities are expected to be required to install an emission control device. However, as a worst case scenario, construction emission calculations were conducted for the installation of emission control equipment and an associated concrete pad. These construction emissions are further discussed in Section **III. b), c), d) & f)**. The installation of a concrete pad may disturb immediate surficial soils due to limited grading/leveling activities. However, these activities are expected to be taking place at an already existing greenwaste composting facility where soils have already been disturbed due to initial development activities. Therefore, it is unlikely that any cultural resources would be uncovered or disturbed as the result of the installation of an emission control system.

Based upon these considerations, significant adverse cultural resources impacts are not expected from the implementing PAR 1133.1 and PR 1133.3 and will not be further assessed in this ~~Draft~~ Final EA. Since no significant adverse cultural resources impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VI. ENERGY. Would the project:				
a) Conflict with adopted energy conservation plans?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
b) Result in the need for new or substantially altered power or natural gas utility systems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Create any significant effects on local or regional energy supplies and on requirements for additional energy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create any significant effects on peak and base period demands for electricity and other forms of energy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Comply with existing energy standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

Impacts to energy and mineral resources will be considered significant if any of the following criteria are met:

- The project conflicts with adopted energy conservation plans or standards.
- The project results in substantial depletion of existing energy resource supplies.
- An increase in demand for utilities impacts the current capacities of the electric and natural gas utilities.
- The project uses non-renewable resources in a wasteful and/or inefficient manner.

Discussion

VI. a) & e) The proposed project is intended to reduce VOC and ammonia emissions from greenwaste composting and minimize VOC and ammonia emissions from inadvertent decomposition associated with stockpiling at chipping and grinding facilities. PAR 1133.1 would require new BMPs for chipping and grinding operations and PR 1133.3 includes new requirements for greenwaste composting. The proposed rule and amendments are not expected to create any additional demand for energy at any of the affected facilities. Since it is unlikely that the affected facilities would require new equipment or modifications, it is unlikely that energy demand requirements would change. As a result, PAR 1133.1 and PR 1133.3 would not conflict with energy conservation plans, use non-renewable resources in a wasteful manner, or result in the need for new or substantially altered power or natural gas systems. Since PAR 1133.1 and PR 1133.3 would affect primarily existing facilities, it will not conflict with adopted energy conservation plans because existing facilities would be expected to continue implementing any existing energy conservation plans. Additionally, operators of affected facilities are expected to implement existing energy conservation plans or comply with energy standards to minimize operating costs. Accordingly these impact issues will not be further analyzed in the ~~draft~~ Final EA.

VI. b), c) & d) PAR 1133.1 and PR 1133.3 would require new BMPs for chipping and grinding operations and PR 1133.3 includes new requirements for greenwaste composting. The proposed

amendments are not expected to increase any electricity or natural gas demand in any way and would not create any significant effects on peak and base period demands for electricity and other forms of energy. If a facility is required or chooses to install an emission control device, the associated increased energy usage is expected to be minimal.

PAR 1133.1 and PR 1133.3 are not expected to generate significant adverse energy resources impacts and will not be discussed further in this ~~Draft~~ Final EA. Since no significant energy impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

Impacts on the geological environment will be considered significant if any of the following criteria apply:

- Topographic alterations would result in significant changes, disruptions, displacement, excavation, compaction or over covering of large amounts of soil.
- Unique geological resources (paleontological resources or unique outcrops) are present that could be disturbed by the construction of the proposed project.
- Exposure of people or structures to major geologic hazards such as earthquake surface rupture, ground shaking, liquefaction or landslides.
- Secondary seismic effects could occur which could damage facility structures, e.g., liquefaction.
- Other geological hazards exist which could adversely affect the facility, e.g., landslides, mudslides.

Discussion

VII. a) Southern California is an area of known seismic activity. Structures must be designed to comply with the Uniform Building Code Zone 4 requirements if they are located in a seismically active area. The local city or county is responsible for assuring that a proposed project complies with the Uniform Building Code as part of the issuance of the building permits and can conduct inspections to ensure compliance. The Uniform Building Code is considered to be a standard safeguard against major structural failures and loss of life. The goal of the code is to provide structures that will: 1) resist minor earthquakes without damage; 2) resist moderate earthquakes without structural damage but with some non-structural damage; and 3) resist major earthquakes without collapse but with some structural and non-structural damage.

The Uniform Building Code bases seismic design on minimum lateral seismic forces (“ground shaking”). The Uniform Building Code requirements operate on the principle that providing appropriate foundations, among other aspects, helps to protect buildings from failure during earthquakes. The basic formulas used for the Uniform Building Code seismic design require determination of the seismic zone and site coefficient, which represent the foundation conditions at the site. Accordingly, buildings and equipment at existing affected facilities are likely to conform with the Uniform Building Code and all other applicable state codes in effect at the time they were constructed.

No new buildings or structures are expected to be constructed in response to the proposed project. Additionally, no modification to existing equipment would be necessary. Therefore, PAR 1133.1 and PR 1133.3 are not expected to affect a facility's ability to continue to comply with any applicable Uniform Building Code requirements. Consequently, PAR 1133.1 and PR 1133.3 are not expected to expose persons or property to geological hazards such as earthquakes, landslides, mudslides, ground failure, or other natural hazards. As a result, substantial exposure of people or structure to the risk of loss, injury, or death involving seismic-related activities is not anticipated and will not be further analyzed in this ~~draft~~ Final EA.

VII. b), c), d) & e) Since PAR 1133.1 and PR 1133.3 would affect primarily existing facilities, it is expected that the soil types present at the affected facilities that are susceptible to expansion or liquefaction would be considered part of the existing setting. New subsidence impacts are not anticipated since no excavation, grading, or fill activities will occur at affected facilities. Further, the proposed project does not involve drilling or removal of underground products (e.g., water, crude oil, et cetera) that could produce new, or make worse existing subsidence effects. Additionally, the affected areas are not envisioned to be prone to new risks from landslides or have unique geologic features, since the affected facilities are located in industrial or commercial areas where such features have already been altered or removed. Finally, since adoption of PAR 1133.1 and PR 1133.3 would be expected to affect operations at primarily existing facilities, the proposed project is not expected to alter or make worse any existing potential for subsidence, liquefaction, etc.

Based on the above discussion, the proposed project is not expected to have an adverse impact on geology or soils. Since no significant adverse impacts are anticipated, this environmental topic will not be further analyzed in the ~~draft~~ Final EA. No mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, and disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
c) Emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public use airport or a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Significantly increased fire hazard in areas with flammable materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

Impacts associated with hazards will be considered significant if any of the following occur:

- Non-compliance with any applicable design code or regulation.
- Non-conformance to National Fire Protection Association standards.
- Non-conformance to regulations or generally accepted industry practices related to operating policy and procedures concerning the design, construction, security, leak detection, spill containment or fire protection.
- Exposure to hazardous chemicals in concentrations equal to or greater than the Emergency Response Planning Guideline (ERPG) 2 levels.

Discussion

VIII. a, b) & c) The proposed project will not create a significant hazard to the public or the environment through the routine transport, use, and disposal of hazardous materials, due to the fact that the proposed rules do not require the transport, use, and disposal of hazardous materials. The reason for this conclusion is that chipping and grinding and composting facilities do not typically use hazardous materials or produce hazardous waste as part of their operating process or procedures. Further, based on the fact that the proposed rules do not require the transport, use and disposal of hazardous materials, PAR 1133.1 and PR 1133.3 will not create a significant hazard to the public or environment through a reasonably foreseeable release of these materials into the environment.

Based on the above facts, there is little likelihood that affected facilities will emit hazardous emissions or handle hazardous materials, substances or waste within one-quarter mile of an existing or proposed school as a result of implementing the proposed rules. Chipping and grinding and greenwaste composting facilities are typically located in light industrial or commercial areas. Further, PAR 1133.1 and PR 1133.3 are intended to reduce overall VOC and ammonia emissions in the district. It is expected that the proposed rules would improve air quality, visibility and reduce odors surrounding existing facilities and, would do likewise for any existing or proposed schools within one-quarter mile of affected facilities.

VIII. d) Government Code §65962.5 typically refers to a list of facilities that may be subject to Resource Conservation and Recovery Act (RCRA) permits. Most facilities affected by PAR 1133.1 or PR 1133.3 are not expected to be on this list, and would not typically handle hazardous materials or generate large quantities of hazardous waste. For any facilities affected by the proposed rule that are on the Government Code §65962.5 list, it is anticipated that they would continue to manage any and all hazardous materials and hazardous waste, in accordance with federal, state and local regulations.

VIII. e) Since PAR 1133.1 and PR 1133.3 would incorporate the new BMPs for chipping and grinding operations and the new requirements for greenwaste composting, implementation of PAR 1133.1 and PR 1133.3 is not expected to increase or create any new hazardous emissions in general, which could adversely affect public/private airports located in close proximity to the affected sites. Implementation of PAR 1133.1 and PR 1133.3 is not expected to create any additional safety hazards for people residing or working in the project area.

VIII. f) The proposed project will not impair implementation of, or physically interfere with any adopted emergency response plan or emergency evacuation plan. Any existing commercial or light industrial facilities affected by the proposed project will typically have their own emergency response plans. Any new facilities will be required to prepare emergency response and evacuation plans as part of the land use permit review and approval process conducted by local jurisdictions for new development. Emergency response plans are typically prepared in coordination with the local city or county emergency plans to ensure the safety of not only the public (surrounding local communities), but the facility employees as well. Since the proposed project does not involve the use of hazardous materials, or generate hazardous waste, no changes to emergency response plans are anticipated.

Health and Safety Code §25506 specifically requires all businesses handling hazardous materials to submit a business emergency response plan to assist local administering agencies in the

emergency release or threatened release of a hazardous material. Business emergency response plans generally require the following:

1. Identification of individuals who are responsible for various actions, including reporting, assisting emergency response personnel and establishing an emergency response team;
2. Procedures to notify the administering agency, the appropriate local emergency rescue personnel, and the California Office of Emergency Services;
3. Procedures to mitigate a release or threatened release to minimize any potential harm or damage to persons, property or the environment;
4. Procedures to notify the necessary persons who can respond to an emergency within the facility;
5. Details of evacuation plans and procedures;
6. Descriptions of the emergency equipment available in the facility;
7. Identification of local emergency medical assistance; and
8. Training (initial and refresher) programs for employees in:
 - a. The safe handling of hazardous materials used by the business;
 - b. Methods of working with the local public emergency response agencies;
 - c. The use of emergency response resources under control of the handler; and
 - d. Other procedures and resources that will increase public safety and prevent or mitigate a release of hazardous materials.

In general, every county or city and all facilities using a minimum amount of hazardous materials are required to formulate detailed contingency plans to eliminate, or at least minimize, the possibility and effect of fires, explosion, or spills. In conjunction with the California Office of Emergency Services, local jurisdictions have enacted ordinances that set standards for area and business emergency response plans. These requirements include immediate notification, mitigation of an actual or threatened release of a hazardous material, and evacuation of the emergency area. Adopting PAR 1133.1 and 1133.3 is not expected to hinder in any way with the above business emergency response plan requirements.

VIII. g) Since the affected facilities are located in industrial or commercial areas where wildlands are typically not prevalent, risk of loss or injury associated with wildland fires is not expected as a result of implementing PAR 1133.1 and PR 1133.3.

VIII. h) Chipping and grinding and greenwaste composting facilities must comply with all local and county requirements for fire prevention and safety. The proposed project does not require any activities which would be in conflict with fire prevention and safety requirements, and thus would not create or increase fire hazards at these existing facilities. Further, facilities affected by the proposed rules do not typically include the routine use of flammable materials in their daily operations. As a result, the proposed project is not expected to increase fire hazards at facilities subject to the provisions of the proposed rules

PAR 1133.1 and PR 1133.3 are intended to reduce VOC and ammonia emissions from greenwaste composting and minimize VOC and ammonia emissions from inadvertent decomposition associated with stockpiling at chipping and grinding facilities. Typically these facilities do not use or store flammable materials. The process of decomposition of materials in a compost pile creates heat, which may create a fire potential, if not properly managed. Pursuant to local and county fire prevention and safety requirements, facilities are required to maintain appropriate site management practices to prevent fire hazards. PAR 1131.1 and PR 1133.3 will not interfere with fire prevention practices.

In conclusion, potentially significant adverse hazard or hazardous material impacts resulting from adopting and implementing PAR 1133.1 and 1133.3 are not expected and will not be considered further. No mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards, waste discharge requirements, exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, or otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in substantial erosion or siltation on- or off-site or flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
d) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Place housing or other structures within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) 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 inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Require or result in the construction of new water or wastewater treatment facilities or new storm water drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

Potential impacts on water resources will be considered significant if any of the following criteria apply:

Water Demand:

- The existing water supply does not have the capacity to meet the increased demands of the project, or the project would use more than 262,820 gallons per day of potable water.
- The project increases demand for total water by more than five million gallons per day.

Water Quality:

- The project will cause degradation or depletion of ground water resources substantially affecting current or future uses.
- The project will cause the degradation of surface water substantially affecting current or future uses.
- The project will result in a violation of National Pollutant Discharge Elimination System (NPDES) permit requirements.
- The capacities of existing or proposed wastewater treatment facilities and the sanitary sewer system are not sufficient to meet the needs of the project.
- The project results in substantial increases in the area of impervious surfaces, such that interference with groundwater recharge efforts occurs.
- The project results in alterations to the course or flow of floodwaters.

Discussion

IX. a), b), c), d) & g) If adopted, PAR 1133.1 and PR 1133.3 would incorporate new BMPs for chipping and grinding operations and new requirements for greenwaste composting. PR 1133.3 would require applying water to the surface of the compost piles so that three inches in depth of the pile is wet. Since most compost piles are already watered for the composting process, the additional irrigation would not be difficult for most of the composting facility operators.

Staff calculated the worst case potential water use associated with the requirement for water application to windrows before turning. Using the Science of Composting (E. Epstein, CRC Press, 1997), staff was able to derive the free air space in a composting pile relative to moisture content. Based on the data provided in the reference, staff identified that average composting moisture content of 50% has an average free air space of 45%. Under PR 1133.3, the piles are to have water applied to make the piles “wet” before turning. Based on comments received from the composting industry, “wet” material would have a moisture content of about 75%. According to the reference, this moisture content would have a free air space of 23%. Assuming the material itself is saturated, the amount of water to be applied to make the material “wet” is represented by the difference in the moisture content (22%), thereby filling the free air space. Using standardized compost pile parameters, the maximum amount of water to be used in one year is approximately 37 million gallons. Using site specific information obtained from the 17 affected facilities, the worst case one-day water use would be about 106,000 gallons, of which approximately 55,4000 gallons is potable and approximately 510,9000 gallons is reclaimed or untreated well or canal water. These amounts fall below the significance levels of water use for CEQA of 262,820 gallons of potable water or five million gallons total water per day, and represent worst case consumption. It should be noted that the facilities currently use more than

50 million gallons of water per year and the operations may adjust the application times to accommodate the rule requirements. For example, watering the piles before turning as opposed to after. It should also be pointed out that watering is only required to the extent the top 3 inches is wet, which may not require water application at all depending on the time of year and climatic conditions.

Based on the above staff calculations, only a small amount of increased water usage is expected due to the proposed rule. Additionally, affected facilities are already required to water stockpiles during turning activities per AQMD Rule 403 – Fugitive Dust.

Because only the top three inches of the pile irrigated becomes wet, there would be no water run-off problems associated with additional watering. No additional wastewater generation is expected to result from the proposed project. Further, PAR 1133.1 and PR 1133.3 have no provision that would require the construction of additional water resource facilities, increase the need for new or expanded water entitlements, or alter existing drainage patterns. The proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. PAR 1133.1 and PR 1133.3 would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Further, the adoption of PAR 1133.1 and PR 1133.3 would not create a change in the current volume of existing wastewater streams from the affected facilities. In addition, the proposed amended rules are not expected to require additional wastewater disposal capacity, violate any water quality standard or wastewater discharge requirements, or otherwise substantially degrade water quality.

Adoption of PAR 1133.1 and PR 1133.3 could affect future operations at existing facilities that are typically located in industrial or commercial areas that are paved and already have drainage infrastructures in place. Based on the current greenwaste composting facility inventory in the District, implementation of PAR 1133.1 and PR 1133.3 is not expected to involve major construction activities including site preparation, grading, etc., so no changes to storm water runoff, drainage patterns, groundwater characteristics, or flow are expected. Therefore, these impact areas are not expected to be affected by PAR 1133.1 and PR 1133.3.

PAR 1133.1 and PR 1133.3 are not expected to have significant adverse water demand or water quality impacts for the following reasons:

- The proposed project does not increase demand for water by more than 5,000,000 gallons per day.
- The proposed project does not require construction of new water conveyance infrastructure.
- The proposed project does not create a substantial increase in mass inflow of effluents to public wastewater treatment facilities.
- The proposed project does not result in a substantial degradation of surface water or groundwater quality.
- The proposed project does not result in substantial increases in the area of impervious surfaces, such that interference with groundwater recharge efforts occurs.

- The proposed project does not result in alterations to the course or flow of floodwaters.

IX. i) The proposed project is not expected to change existing operations at affected facilities, nor would it result in the generation of increased volumes of wastewater, because only a small amount of increased water usage if any is expected due to the proposed rule. As a result, there are no potential changes in wastewater volume expected from facilities as a result of the adoption of PAR 1133.1 and PR 1133.3. It is expected that facilities and operations will continue to handle wastewater generated in a similar manner and with the same equipment as the wastewater that is currently generated. Further, PAR 1133.1 and PR 1133.3 are not expected to cause affected facilities to violate any water quality standard or wastewater discharge requirements since there would be no additional wastewater volumes generated as a result of adopting PAR 1133.1 and PR 1133.3.

IX. e), f) & h) The proposed project would incorporate new BMPs for chipping and grinding operations and the new requirements for greenwaste composting. As a result, PAR 1133.1 and PR 1133.3 would not require construction of new housing, contribute to the construction of new building structures, or require modifications or changes to existing structures. Further, PAR 1133.1 and PR 1133.3 are not expected to require additional workers at affected facilities because the proposed project does not affect how equipment is operated. Therefore, PAR 1133.1 and PR 1133.3 are not expected to generate construction of any new structures in 100-year flood areas as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood delineation map. As a result, PAR 1133.1 and PR 1133.3 are not expected to expose people or structures to significant new flooding risks, or make worse any existing flooding risks. Because PAR 1133.1 and PR 1133.3 would not require construction of new structures or the addition of new employees, PAR 1133.1 and PR 1133.3 will not affect in any way any potential flood hazards inundation by seiche, tsunami, or mud flow that may already exist relative to existing facilities or create new hazards at existing facilities. Additionally, since PAR 1133.1 and PR 1133.3 do not require additional water usage or demand, sufficient water supplies are expected to be available to serve the project from existing entitlements and resources, and no new or expanded entitlements would be needed.

Based upon these considerations, significant hydrology and water quality impacts are not expected from the adoption of PAR 1133.1 and PR 1133.3 and will not be further analyzed in this ~~draft~~ Final EA. Since no significant hydrology and water quality impacts were identified, no mitigation measures are necessary or required.

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

Significance Criteria

Land use and planning impacts will be considered significant if the project conflicts with the land use and zoning designations established by local jurisdictions.

Discussion

X. a) PAR 1133.1 and PR 1133.3 would not require any new development or require modifications to buildings or other structures to comply with the new BMPs for chipping and grinding operations and the new requirements for greenwaste composting at any of the currently existing facilities. Therefore, PAR 1133.1 and PR 1133.3 do not include any components that would require physically dividing an established community.

X. b) There are no provisions in PAR 1133.1 and PR 1133.3 that would affect land use plans, policies, or regulations. Land use and other planning considerations are determined by local governments and no land use or planning requirements would be altered by the new BMPs for chipping and grinding operations and the new requirements for greenwaste composting. Therefore, as already noted in the discussion under “Biological Resources,” PAR 1133.1 and PR 1133.3 would not affect in any habitat conservation or natural community conservation plans, agricultural resources or operations, and would not create divisions in any existing communities. Present or planned land uses in the region would not be significantly adversely affected as a result of implementing the proposed amended rules.

Based upon these considerations, significant adverse land use and planning impacts are not expected from the implementation of PAR 1133.1 and PR 1133.3 and will not be further analyzed in this *Draft Final EA*. Since no significant land use and planning impacts were identified, no mitigation measures are necessary or required.

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

Significance Criteria

Project-related impacts on mineral resources will be considered significant if any of the following conditions are met:

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

Discussion

XI. a) & b) There are no provisions in PAR 1133.1 and PR 1133.3 that would result in the loss of availability of a known mineral resource of value to the region and the residents of the state, or of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan because compliance with PAR 1133.1 and PR 1133.3 does not require mineral resources such as sand, gravel, etc.

Based upon the above considerations, significant adverse mineral resources impacts are not expected from the implementation of PAR 1133.1 and PR 1133.3 and will not be further analyzed in this ~~Draft~~ Final EA. Since no significant mineral resources impacts were identified, no mitigation measures are necessary or required.

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

Significance Criteria

Impacts on noise will be considered significant if:

- Construction noise levels exceed the local noise ordinances or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three decibels (dBA) at the site boundary. Construction noise levels will be considered significant if they exceed federal Occupational Safety and Health Administration (OSHA) noise standards for workers.
- The proposed project operational noise levels exceed any of the local noise ordinances at the site boundary or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three dBA at the site boundary.

Discussion

XII. a) PAR 1133.1 and PR 1133.1 would incorporate new BMPs for chipping and grinding operations and the new requirements for greenwaste composting. PAR 1133.1 and PR 1133.3 would not require any new development or require modifications to buildings or other structures to comply with the proposed amended rules at any of the currently existing facilities. All of the affected activities occur within existing facilities. Compliance with the new BMPs for chipping and grinding operations and the new requirements for greenwaste composting are not expected to adversely affect operations at affected facilities. Thus, the proposed project is not expected to expose persons to the generation of excessive noise levels above current facility levels. It is expected that any facility affected by PAR 1133.1 and PR 1133.3 would continue complying with all existing local noise control laws or ordinances.

In commercial environments, Occupational Safety and Health Administration (OSHA) and California-OSHA have established noise standards to protect worker health. It is expected that operators at affected facilities will continue complying with applicable OSHA or Cal/OSHA noise standards, which would limit noise impacts to workers, patrons and neighbors.

XII. b) PAR 1133.1 and PR 1133.3 are not anticipated to expose people to, or generate excessive groundborne vibration or groundborne noise levels since complying with PAR 1133.1 and PR 1133.3 is not expected to alter operations at affected facilities. Therefore, any existing noise or vibration levels at affected facilities are not expected to change as a result of implementing PAR 1133.1 and PR 1133.3. Since existing operations are not expected to generate excessive groundborne vibration or noise levels, and PAR 1133.1 and PR 1133.3 are not expected to alter physical operations, no groundborne vibrations or noise levels are expected from the proposed amended rules.

XII. c) A permanent increase in ambient noise levels at the existing affected facilities above existing levels as a result of implementing the proposed project is unlikely to occur because the physical operations are not expected to change at affected facilities. The existing noise levels are unlikely to change and raise ambient noise levels in the vicinities of the existing facilities to above a level of significance, because implementation of new BMPs for chipping and grinding operations and the new requirements for greenwaste composting is not expected to generate higher noise levels than are already occurring.

No increase in periodic or temporary ambient noise levels in the vicinity of affected facilities above levels existing prior to PAR 1133.1 and PR 1133.3 is anticipated because the proposed project would not require substantial changes to any of the currently existing facilities. As indicated earlier, operational noise levels are expected to be equivalent to existing noise levels. PR 1133.3 may include some construction activities, should the facilities be required or choose to install control equipment. Sources which may be expected to generate noise during temporary construction activities might include earth-moving equipment, cement trucks, work-crew vehicular traffic, compressors and generators. Table 2-6 presents a range of noise levels for various types of equipment that may be used at a typical construction site. Because of the nature of this activity, the types, numbers, periods of operation, loudness of equipment, and distance to the closest sensitive receptor/residence, will vary with each construction phase and the size of the composting project.

**TABLE 2-6
Typical Construction Noise Sources**

Equipment Type	Typical Range (decibels)
Tractors/Crawlers/Dozers (up to 450 hp)	78 to 82
Grader (300 hp)	80
Diesel Trucks (100 to 400 hp)	72 to 81
Backhoe (85 hp)	76
Forklift (40 hp)	75
Air Compressor (25 hp or 230 hp)	75 or 80
Generator (22 hp or 550 hp)	73 or 85

These construction activities (as well as operational activities for the initial covering) will increase noise levels for a short duration, but will cease once activities are complete. Further, co-composting facilities are typically located in light industrial or rural areas, removed from residential communities. Based on current throughput at facilities located within the District, no currently existing facilities would be required to install air pollution control equipment. Therefore, none of the construction noise referred to above is expected to occur.

XII. d) Even if an affected facility is located near a public/private airport, there are no new noise impacts expected from any of the existing facilities as a result of complying with the proposed project. Similarly, any existing noise levels at affected facilities are not expected to increase appreciably. Thus, PAR 1133.1 and PR 1133.3 are not expected to expose people residing or working in the vicinities of public airports to excessive noise levels.

Based upon these considerations, significant adverse noise impacts are not expected from the implementation of PAR 1133.1 and PR 1133.3 and are not further evaluated in this ~~Draft~~ Final EA. Since no significant noise impacts were identified, no mitigation measures are necessary or required.

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

Significance Criteria

Impacts of the proposed project on population and housing will be considered significant if the following criteria are exceeded:

- The demand for temporary or permanent housing exceeds the existing supply.
- The proposed project produces additional population, housing or employment inconsistent with adopted plans either in terms of overall amount or location.

Discussion

XIII. a) The proposed project is not anticipated to generate any significant adverse effects, either direct or indirect, on the district's population or population distribution as no additional

workers are anticipated to be required for affected facilities to comply with the proposed amendments. Human population within the jurisdiction of the SCAQMD is anticipated to grow regardless of implementing PAR 1133.1 and PR 1133.3. As such, PAR 1133.1 and PR 1133.3 would not result in changes in population densities or induce significant growth in population.

XIII. b) Because the proposed project affects chipping and grinding and greenwaste composting facilities, PAR 1133.1 and PR 1133.3 are not expected to result in the creation of any industry that would affect population growth, directly or indirectly, induce the construction of single- or multiple-family units, or require the displacement of people elsewhere.

Based upon these considerations, significant adverse population and housing impacts are not expected from the implementation of PAR 1133.1 and PR 1133.3 and are not further evaluated in this ~~Draft~~ Final EA. Since no significant population and housing impacts were identified, no mitigation measures are necessary or required.

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

Significance Criteria

Impacts on public services will be considered significant if the project results in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response time or other performance objectives.

Discussion

XIV. a) & b) PAR 1133.1 and PR 1133.3 would implement new BMPs for chipping and grinding operations and the new requirements for greenwaste composting. The proposed project does not require any action which would alter and, thereby, adversely affect existing public services, or require an increase in governmental facilities or services to support the affected existing facilities. Current fire, police and emergency services are adequate to serve existing facilities, and the proposed project will not result in the need for new or physically altered government facilities in order to maintain acceptable service ratios, response times, or other performance objectives.

Because the proposed project does not require or involve the use of hazardous materials or hazardous waste, it will not generate an emergency situation that would require additional fire or police protection, or impact acceptable service ratios or response times.

XIV. c) & d) As indicated in discussion under item XIII. Population and Housing, implementing PAR 1133.1 and PR 1133.3 would not induce population growth or dispersion because no additional workers are expected to be needed at the existing affected facilities. Therefore, with no increase in local population anticipated as a result of adopting and implementing PAR 1133.1 and PR 1133.3, additional demand for new or expanded schools or parks is also not anticipated. As a result, no significant adverse impacts are expected to local schools or parks.

Based upon these considerations, significant adverse public services impacts are not expected from the implementation of PAR 1133.1 and PR 1133.3 and are not further evaluated in this Draft Final EA. Since no significant public services impacts were identified, no mitigation measures are necessary or required.

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

Significance Criteria

Impacts to recreation will be considered significant if:

- The project results in an increased demand for neighborhood or regional parks or other recreational facilities.
- The project adversely affects existing recreational opportunities.

Discussion

XV. a) & b) As discussed under “Land Use and Planning” above, there are no provisions in PAR 1133.1 and PR 1133.3 that would affect land use plans, policies, or regulations. Land use and other planning considerations are determined by local governments and no land use or planning requirements will be altered by the proposed amended rules. The proposed project would not increase the demand for, or use of existing neighborhood and regional parks or other recreational facilities or require the construction of new or expansion of existing recreational facilities that might create an adverse physical effect on the environment because it will not directly or indirectly increase or redistribute population.

Based upon these considerations, significant recreation impacts are not expected from the implementation of PAR 1133.1 and PR 1133.3 and are not further evaluated in this ~~Draft~~ Final EA. Since no significant recreation impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XVI. SOLID/HAZARDOUS WASTE.				
Would the project:				
a) Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Comply with federal, state, and local statutes and regulations related to solid and hazardous waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

The proposed project impacts on solid/hazardous waste will be considered significant if the following occurs:

- The generation and disposal of hazardous and non-hazardous waste exceeds the capacity of designated landfills.

Discussion

XVI. a) Landfills are permitted by the local enforcement agencies with concurrence from CalRecycle, formerly the California Integrated Waste Management Board (CIWMB). Local agencies establish the maximum amount of solid waste which can be received by a landfill each day and the operational life of a landfill.

There are three Class I landfills in California: Chemical Waste Management Kettleman Hills in Kettleman City, CA; Clean Harbors Buttonwillow in Buttonwillow, CA, and Clean Harbors Westmorland in Westmorland, CA. Chemical Waste Management Kettleman Hills has a remaining capacity of 7,360,000 cubic yards with an estimated closure date of 2037. Clean Harbors Buttonwillow and Westmorland have a remaining capacity of 12,731,000 cubic yards with an estimated closure date of 2036.

Chipping and grinding activities are considered to be a component of the solid waste industry. The objective of PAR 1133.1 is to harmonize the rule BMPs for chipping and grinding operations in order to minimize VOC and ammonia emissions from inadvertent decomposition associated with stockpiling. Some landfills include a chipping and grinding operation onsite, which reduces the size of wood and brush, so that the material can be used as alternative daily cover (ADC). These operations at landfills would be subject to the requirements of PAR 1133.1. As a result, this proposed rule is not expected to adversely impact landfill operations or landfill capacity because activities regulated by PAR 1133.1 are already part of the current practices of affected chipping and grinding facilities.

PAR 1133.1 will not require the addition of any costly equipment, building enclosures, or generate additional solid waste requiring disposal in local landfills, or transportation out of the district. Further, PAR 1133.1 does not include or affect any requirements that would generate, store, transport or dispose of hazardous waste and, therefore, will not pose a hazardous waste impact.

Greenwaste composting activities are also considered to be a component of the solid waste industry, and a sub-set of the composting industry. PR 1133.3 is intended to reduce VOC and ammonia emissions, precursors to PM2.5 and ozone. The requirement for emission reductions at existing composting facilities is not expected to impact landfill capacity. The proposed rule provides substantial flexibility regarding compliance with the emissions control requirements. For this reason, the proposed project is not expected to cause existing facilities to close or divert composting feedstock to landfills. Consequently, no significant adverse impacts to landfills are expected.

XVI. b) Existing chipping and grinding and greenwaste composting facilities must currently comply with applicable federal, state and local regulations governing solid waste operations. The provisions of PAR 1133.1 and PR 1133.3 will not alter, or reduce, the compliance requirements for these types of operations. These facilities are typically considered a non-hazardous operation and permitted by the CalRecycle and/or a local enforcement agency. Additionally, facilities must also comply with Title 14 as permitted and enforced by the LEAs.

AB939, known as the California Integrated Waste Management Act of 1989 (California Public Resources Code Section 40050-40063) was initiated to promote and maximize integrated waste management options. The impetus for AB939 was to encourage innovative waste disposal

practices and reduce the reliance on, and assumption that, the only method for solid waste disposal was by landfill. PAR 1133.1 and PR 1133.3 will not have a significant adverse impact on the goals and objectives of AB 939. The proposed rules are intended to reduce air pollutant emissions, not cause the diversion of feedstock typically sent to composting and related facilities, nor cause these activities to cease operations.

PAR 1133.1 and PR 1133.3 are not expected to increase the volume of solid or hazardous wastes from affected facilities, require additional waste disposal capacity, or generate waste that does not meet applicable local, state, or federal regulations. With regard to potential wastewater impacts, please see the discussion under item IX., "Hydrology and Water Quality." Since no solid/hazardous waste impacts were identified, no mitigation measures are necessary or required.

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

dangerous intersections) or incompatible uses (e.g. farm equipment)?

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
e)	Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

Impacts on transportation/traffic will be considered significant if any of the following criteria apply:

- Peak period levels on major arterials are disrupted to a point where level of service (LOS) is reduced to D, E or F for more than one month.
- An intersection’s volume to capacity ratio increase by 0.02 (two percent) or more when the LOS is already D, E or F.
- A major roadway is closed to all through traffic, and no alternate route is available.
- The project conflicts with applicable policies, plans or programs establishing measures of effectiveness, thereby decreasing the performance or safety of any mode of transportation.
- There is an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system.
- The demand for parking facilities is substantially increased.
- Water borne, rail car or air traffic is substantially altered.
- Traffic hazards to motor vehicles, bicyclists or pedestrians are substantially increased.
- The need for more than 350 employees
- An increase in heavy-duty transport truck traffic to and/or from the facility by more than 350 truck round trips per day
- Increase customer traffic by more than 700 visits per day.

Discussion

XVII. a) & b) PAR 1133.1 is not expected to cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system. If chipped and ground material is used onsite there will be no increase in trips leaving the site. If chipped and ground material is currently removed from the site, the net effect of PAR 1133.1 could be that the material would be removed sooner, but not as an additional trip. Further, existing affected facilities are located throughout the entire district. It is unlikely that truck trips leaving two or more facilities will affect the level of service (or volume-to-capacity ratio) at a single intersection at the same time.

PR 1133.3 is also not expected to cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system. Assuming the facility chooses to install an emission control device, traffic may increase on a temporary basis during construction activities. However, based on current throughput at facilities located within the District, no currently existing facilities would be required to install air pollution control equipment. Based on the construction assumptions discussed in Appendix B, there would be a traffic increase of 26 trips per day during the installation of an emission control system and associated components. PAR 1133.3 does not, however, require site modifications which would require the hiring of additional permanent employees, or require an increase in heavy-duty transport truck traffic to and/or from the facility by more than the SCAQMD significance threshold of 350 truck round-trips per day. Further, existing affected facilities are located throughout the entire district. It is unlikely that truck trips from two or more facilities will affect the level of service (or volume-to-capacity ratio) at a single intersection at the same time. Therefore, because the number of construction vehicle trips from construction is so low, the proposed project is not expected to impact the existing traffic load and capacity of the street system, or exceed the level of service standard established by the county congestion management agency for designated roads or highways.

The proposed project sets forth requirements to control VOC and ammonia emissions primarily from existing facilities, and includes a variety of options for operators to comply with the proposed rules. Facilities are not expected to cease operations. As a result, additional trips to divert chipping and grinding and compost feedstock materials to a location out of the district or out of state, are not expected.

XVII. c) PAR 1133.1 and PR 1133.3 will not require operators of existing facilities to construct buildings or other structures or change the height and appearance of the existing structures, such that they could interfere with flight patterns. Therefore, adoption of PAR 1133.1 and PR 1133.3 are not expected to adversely affect air traffic patterns. Further, PAR 1133.1 and PR 1133.3 will not affect in any way air traffic in the region because it will not require transport of any materials by air.

XVII. d) The proposed project does not require or include any facility modifications which would necessitate hazardous design features either onsite, or offsite; or necessitate incompatible vehicular uses (e.g. farm equipment). The siting of a new facility will undergo a review of the site plan and other documents by the local land use authority to also ensure no hazardous design features are incorporated into the development application.

XVII. e) The proposed project does not require any changes to an existing facility which would impact emergency access, parking capacity, or conflict with alternative transportation policies, plans or programs already in place. The siting of a new facility would undergo a review of the site plan and other documents to ensure adequate emergency access, parking capacity and consistency with alternative transportation policies, plans or programs.

XVII. f) Since PAR 1133.1 and PR 1133.3 only implements BMPs for chipping and grinding operations and the new requirements for greenwaste composting, the implementation of PAR 1133.1 and PR 1133.3 would not result in conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Based upon these considerations, PARs 1133.1 and PR 1133.3 are not expected to generate significant adverse transportation/traffic impacts and, therefore, this topic will not be considered further. Since no significant transportation/traffic impacts were identified, no mitigation measures are necessary or required.

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

Discussion

XVIII. a) As discussed in the “Biological Resources” section, PAR 1133.1 and PR 1133.3 are not expected to significantly adversely affect plant or animal species or the habitat on which they rely because PAR 1133.1 and PR 1133.3 implement BMPs for chipping and grinding operations

and new requirements for greenwaste composting, which will primarily be conducted at existing affected facilities. All of the currently affected facilities are located at sites that have already been greatly disturbed and that currently do not support such habitats. PAR 1133.1 and PR 1133.3 are not expected to induce construction of any new land use projects that could affect biological resources.

XVIII. b) Based on the foregoing analyses, cumulative impacts in conjunction with other projects that may occur concurrently with or subsequent to the proposed project are not expected to adversely impact any environmental topic. Related projects to the currently proposed project include existing and proposed amended rules and regulations, as well as AQMP control measures, which produce emission reductions from most industrial and commercial sectors. Furthermore, because PAR 1133.1 and PR 1133.3 do not generate project-specific impacts, cumulative impacts are not considered to be "cumulatively considerable" as defined by CEQA guidelines §15065(a)(3). For example, the environmental topics checked 'No Impact' (e.g., aesthetics, agriculture resources, air quality, biological resources, cultural resources energy, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, solid/hazardous waste and transportation and traffic) would not be expected to make any contribution to potential cumulative impacts whatsoever. Also, in the case of air quality impacts, the net effect of implementing the proposed project with other proposed amended rules and regulations, and AQMP control measures is an overall reduction in district-wide emissions, thus, contributing to the attainment of state and national ambient air quality standards. Therefore, it is concluded that PAR 1133.1 and PR 1133.3 have no potential for significant cumulative or cumulatively considerable impacts in any environmental areas.

XVIII.c) Based on the foregoing analyses, PAR 1133.1 and PR 1133.3 are not expected to cause significant adverse effects to human beings. Significant adverse air quality impacts are not expected from the implementation of PAR 1133.1 and PR 1133.3. Based on the preceding analyses, no significant adverse impacts to aesthetics, agriculture resources, biological resources, cultural resources, energy, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, solid/hazardous waste and transportation and traffic are expected as a result of the implementation of PAR 1133.1 and PR 1133.3.

As discussed in items I through XVIII above, the proposed project would have no potential to cause significant adverse environmental effects.

APPENDIX A

PROPOSED AMENDED RULE 1133.1

**PROPOSED AMENDED RULE 1133.1 CHIPPING AND GRINDING
ACTIVITIES**

(a) Purpose

The purpose of this rule is to prevent inadvertent decomposition occurring during chipping and grinding activities, including stockpile operations.

(b) Applicability

This rule applies to operators of chipping and grinding activities to produce materials other than active or finished compost, unless otherwise exempted under subdivision (f) of this rule. The requirements of Rule 403 – Fugitive Dust, also apply to these activities.

(c) Definitions

For the purposes of this rule, the following definitions shall apply:

(1) ACTIVE COMPOST is material that is in the process of being rapidly decomposed and is biologically unstable. Active compost is generating temperatures of at least 122 degrees Fahrenheit during decomposition. Active compost includes, but is not limited to, pathogen-reduced mulch.

~~(1)~~(2) AGRICULTURAL CHIPPING AND GRINDING is any chipping and grinding activity conducted at an agricultural site where organic waste material is generated on-site by the production and/or processing of farm products, and the chipped and ground organic waste material is used on-site.

~~(23) CALENDAR DAYS refer to any days of the year, excluding official federal and state holidays.~~

~~(3)~~ CHIPPING AND GRINDING is any activity that mechanically reduces the size of greenwaste, woodwaste, and/or foodwaste.

~~(4)~~ COMPOSTING is a process in which solid organic waste materials are decomposed in the presence of oxygen under controlled conditions through the action of bacteria and other microorganisms.

(5) COMPOST OVERS are the oversized woody materials that do not decompose in a typical composting cycle and are screened out of finished product at the end of composting. Compost overs have been through the

pathogen reduction process outlined in Title 14, Section 17868.3 of the California Code of Regulations.

- (6) CURBSIDE GREENWASTE is greenwaste that is collected from receptacles designated for residential household greenwaste. Curbside greenwaste also includes screened curbside greenwaste containing only grass clippings, leaves, and/or twigs that is not considered non-curbside greenwaste as defined in paragraph (c)~~(1113)~~.
- (7) FINISHED COMPOST is a humus-like material and/or compost overs that result from the controlled biological decomposition of organic waste materials and is biologically stable.
- (8) FOODWASTE is any food scraps collected from the food service industry, grocery stores, or residential food scrap collection. Foodwaste also includes ~~foodwaste~~ food scraps that ~~is~~ are chipped and ground. ~~Foodwaste mixed with greenwaste is considered foodwaste.~~
- (9) GREENWASTE is any organic waste material generated from gardening, agriculture, or landscaping activities including, but not limited to, grass clippings, leaves, tree and shrub trimmings, and plant remains. It includes curbside, non-curbside, and mixed greenwaste.
- (10) INADVERTENT DECOMPOSITION is decomposition of greenwaste and/or foodwaste associated with stockpiling greenwaste and/or foodwaste for an extended period of time, and is not considered part of normal chipping and grinding operations.
- (11) LANDCLEARING is an activity where trees and plants grown at the site are cut, then chipped or ground and removed from the site to clear the site.
- (12) MIXED GREENWASTE is curbside greenwaste that is mixed with non-curbside greenwaste.
- (13) NON-CURBSIDE GREENWASTE is any greenwaste that is not collected from receptacles designated for residential household greenwaste. ~~Curbside greenwaste or mixed greenwaste that is screened and contains only large woody materials (larger than 3 inches in any dimension) such as tree trimmings and branches, is also considered to be non-curbside greenwaste.~~
- (14) PALM CHIPPING AND GRINDING is any activity that mechanically reduces the size of palm trees waste.

- (15) PORTABLE CHIPPING AND GRINDING is chipping and grinding utilizing equipment with a manufacturer's rating of 170 brake horsepower or less.
- (16) RAINY DAY is any day with at least 0.05 inches of rain reported by the National Weather Service or a cooperative weather reporting station for the site closest to where the chipping and grinding activity occurs.
- (17) STOCKPILE is a supply of raw material tipped and stored prior to being utilized on-site or removed from the site. Raw materials before and after chipping and grinding are also included.
- (18) WET WEATHER CONDITIONS are weather conditions following a rainy day not to exceed 10 days.
- ~~(18)~~(19) WOODWASTE is lumber, and the woody material portion of mixed demolition wastes and mixed construction wastes. Woodwaste also includes large wood materials of curbside greenwaste or mixed greenwaste that is screened or unscreened, such as tree trimmings, branches, tree trunks, stumps, and limbs exceeding 2 inches in any dimension.

(d) Requirements

~~Effective July 1, 2003, the~~ The operator of a chipping and grinding activity shall comply with the following requirements:

- (1) ~~Remove foodwaste from the site or use foodwaste for on-site composting within 2 calendar days of receipt~~ Foodwaste shall not be taken at the facility, unless otherwise allowed by the Local Enforcement Agency to handle foodwaste.
- (2) Chip or grind, ~~or use~~ and utilize on-site, or remove curbside, ~~non-curbside, or mixed~~ greenwaste from the site within ~~3 calendar days~~ 48 hours of receipt, excluding observance of official federal and state holidays, or up to seven days maximum, with approval from ~~unless otherwise allowed by the Local Enforcement Agency to hold materials for a longer period of time.~~
- (3) ~~Chip or grind or remove non-curbside greenwaste from the site within 14 calendar days of receipt.~~
- (4) ~~Chip or grind, or use on-site, or remove mixed greenwaste from the site within 7 calendar days of receipt.~~

~~(5)(3) Remove chipped or ground curbside greenwaste from the site or use chipped or ground curbside greenwaste on site within 3 calendar days of being chipped or ground~~Maintain all the operational records for the prior five years of operation, with the most recent two years retained at the facility, which shall be immediately available upon request by the Executive Officer. The remaining three years of records shall be made available to the Executive Officer within one week of request.

~~(6)(4)~~ Maintain the following records, as applicable, on-site for two years:

- (A) A copy of the facility's AQMD registration and annual updates submitted in compliance with Rule 1133; ~~and,~~
- (B) Records of date, type, and amount of greenwaste ~~and/or foodwaste~~ received; ~~and,~~
- (C) Records of date, type, amount of greenwaste ~~and/or foodwaste~~ removed from the site, and location where they are transferred to.;
- (D) Records of dates of rainy days and wet weather conditions and description of specific conditions that limited normal operations.;
- (E) Records of temperature or moisture content measurements.;
- (F) Records of dates and amount of curbside greenwaste chipped and ground.

~~(7)(5)~~ The time requirements specified in paragraphs ~~(d)(1), (d)(2), (d)(3), (d)(4), and (d)(5)~~ may be extended by the number of rainy days and wet weather conditions that impede normal chipping and grinding operations provided that records are maintained in accordance with subparagraph (d)(~~6~~)(D).

(e) Moisture Content Measurement

Moisture content will be determined by collecting at least 10 samples of chipped and ground greenwaste from various locations of the pile at a depth of at least 12 inches below pile surface. The samples shall then be mixed thoroughly and analyzed for moisture content by ASTM method D4442 (December 2007), ASTM method D4444 (May 2008) or ASTM method E871-82 (December 2006).

(f) Exemptions

(1) Chipping and grinding activities of greenwaste derived from the site and ~~used~~ utilized on-site shall be exempt from the requirements of paragraphs (d)(2), (d)(3), and (d)(4), ~~(d)(5), and (d)(6), provided less than 1,000 cubic yards of materials are either sold or given away.~~

- (2) Portable chipping and grinding, agricultural chipping and grinding, land clearing chipping and grinding, woodwaste chipping and grinding, and palm chipping and grinding activities shall be exempt from the requirements of paragraphs (d)(2), (d)(3), and (d)(4), ~~(d)(5), and (d)(6)~~.
- (3) Chipped and ground curbside greenwaste shall be exempt from the requirements of paragraph (d)(~~5~~2) provided that the moisture content is less than 30%, measured in accordance with subdivision (e) and the temperature or moisture content measurements are maintained on-site in accordance with subparagraph (d)(~~6~~4)(E).
- (4) A biomass power generation facility or a facility processing material as a biomass fuel for a biomass power generation facility shall be exempt from the requirements of paragraph (d)(2) provided that the material temperature is maintained at below 122 degrees Fahrenheit or the moisture content is less than 30%, measured in accordance with subdivision (e) and the temperature or moisture content measurements are maintained on-site in accordance with subparagraph (d)(4)(E). This exemption shall not apply to material processed for purposes other than biomass fuel.
- (5) The operator of a landfill or biomass power generation facility shall be exempt from the requirements of paragraph (d)(4), provided that the operator does not perform chipping and grinding of greenwaste on-site.

APPENDIX B

PROPOSED RULE 1133.3

PROPOSED RULE 1133.3 EMISSION REDUCTIONS FROM GREENWASTE COMPOSTING OPERATIONS

(a) Purpose

The purpose of this rule is to reduce fugitive emissions of volatile organic compounds (VOC) and ammonia occurring during greenwaste composting operations.

(b) Applicability

This rule applies to the operator of all new and existing greenwaste composting operations that produce active or finished compost from greenwaste by itself or greenwaste in combination with manure or foodwaste, unless otherwise exempted under subdivision (g) of this rule.

(c) Definitions

For the purposes of this rule, the following definitions shall apply:

- (1) ACTIVE COMPOST means material that is in the process of being rapidly decomposed and is biologically unstable. Active compost is generating temperatures of at least 122 degrees Fahrenheit during decomposition. Active compost includes, but is not limited to, pathogen-reduced mulch.
- (2) ACTIVE PHASE means the phase of the greenwaste composting process that begins when organic waste materials are mixed together for composting and lasts a minimum of 22 days under controlled conditions or until the compost has a Solvita Maturity Index of five or greater measured pursuant to subparagraph (e)(4)(A).
- (3) BACKYARD COMPOSTING means composting conducted by a household including, but not limited to, single family residences, condominiums, duplexes, or apartment buildings.
- (4) BASELINE EMISSION FACTORS mean the uncontrolled emission factors for greenwaste composting operations for VOC and ammonia.
- (5) COMMUNITY COMPOSTING means composting conducted by a residential neighborhood association using feedstock generated within the residential neighborhood to produce compost for the neighborhood's use.

- (6) COMPOSTING means a process in which solid organic waste materials are decomposed in the presence of oxygen through the action of bacteria and other microorganisms.
- (7) COMPOST OVERS mean the oversized woody materials that do not decompose in a typical composting cycle and are screened out of finished product at the end of composting. Compost overs have been through the pathogen reduction process outlined in Title 14, Section 17868.3 of the California Code of Regulations.
- (8) CURING PHASE means the phase of the greenwaste composting process that begins immediately after the end of the active phase of composting and lasts a minimum of 40 days or until the compost has a Solvita Maturity Index of seven or the product respiration rate is below ten milligrams of oxygen consumed per gram of volatile solids per day as measured by direct respirometry, pursuant to subparagraph (e)(4)(B).
- (9) EXISTING GREENWASTE COMPOSTING OPERATIONS mean all greenwaste composting operations that have begun operations on or before (*date of adoption*).
- (10) FINISHED COMPOST means a humus-like material and/or compost overs that result from the controlled biological decomposition of organic waste materials and is biologically stable. Both the active and curing phases of the greenwaste composting are required to achieve this product.
- (11) FOODWASTE means any pre- or post-consumer food scraps collected from the food service industry, grocery stores, or residential food scrap collection. Foodwaste also includes food scraps that are chipped and ground. ~~Any non-food material that is not separated from food scraps is considered foodwaste for the purpose of calculating throughput, including but not limited to compostable plastic bags and food-soiled packaging, papers or other biodegradable material, or non-compostable solid waste, such as napkins, cans, glass, plastics including bags, containers and styrofoam.~~
- (12) GREENWASTE means any organic waste material generated from gardening, agriculture, or landscaping activities including, but not limited to, grass clippings, leaves, tree and shrub trimmings, and plant remains.
- (13) GREENWASTE COMPOSTING means composting of greenwaste by itself or a mixture with foodwaste, or with up to 20 percent manure, per pile volume basis.
- (14) NEW GREENWASTE COMPOSTING OPERATIONS mean greenwaste composting operations that have not started operations as of (*date of adoption*).

- (15) NURSERY COMPOSTING means composting conducted at a nursery to produce compost for on-site use.
 - (16) ORGANIC WASTE means any organic waste material that includes foodwaste, greenwaste, woodwaste, or manure, or a mixture thereof.
 - (17) OPERATOR means any person that operates a greenwaste composting operation.
 - (18) PILE means compostable material that is heaped together.
 - (19) RECREATIONAL FACILITY COMPOSTING means composting conducted at parks, arboretums and other recreational facilities using feedstock generated on-site to produce compost for on-site use.
 - (20) SOLVITA MATURITY INDEX means an index that defines the stage where compost exhibits resistance to further decomposition, as tested by the Solvita Maturity Test[®].
 - (21) START-UP means the first day of active greenwaste composting operations at the facility.
 - (22) THROUGHPUT means the mass of manure, foodwaste, or greenwaste in tons per year as received by the facility and processed through composting, excluding recycled materials.
 - (23) TMECC means Test Methods for the Examination of Composting and Compost published by the US Composting Council Research and Education Foundation.
 - (24) WOODWASTE means lumber, and the woody material portion of mixed demolition and construction wastes. Woodwaste also includes large wood materials of curbside greenwaste or mixed greenwaste that is screened or unscreened, such as tree trimmings, branches, tree trunks, stumps, and limbs exceeding two inches in any dimension.
- (d) Requirements
- (1) Effective (*date of adoption*), the operator of greenwaste composting operations shall comply with the following requirements:
 - (A) Chip or grind, as necessary, and use greenwaste for on-site composting ~~within 48 hours of receipt, unless otherwise~~ as allowed by the Local Enforcement Agency ~~to hold for a longer period of time~~.
 - (B) Use foodwaste for on-site composting within 48 hours of receipt or cover foodwaste with screened or unscreened finished compost until used, unless otherwise required by the Local Enforcement Agency.
 - (2) Effective upon start-up for new greenwaste composting operations and effective (*4 months after date of adoption*) for existing greenwaste composting operations,

the operator of greenwaste composting operations processing greenwaste only or up to 20 percent manure, by volume, or up to 5,000 tons per year of foodwaste throughput shall comply with the following requirements:

- (A) Cover each active phase pile with screened or unscreened finished compost within ~~three~~-twenty-four hours of initial pile formation such that the top is at least six inches thick and the pile shall not be turned for the first seven days of the active phase of composting, unless subparagraph (d)(2)(D) applies.
- (B) For the first fifteen days after initial pile formation for the active phase period of composting, within ~~three~~-six hours before turning, apply water as necessary to the surface area of each active phase pile such that the top one half of the pile is wet to a depth of three inches. Alternatively, the operator may apply water during turning using a windrow turner which is equipped with water spraying technology during the entire windrow turning process.
- (C) If a rain event occurs prior to watering the pile within ~~three~~-six hours before turning and the pile is wet to a depth of three inches, the operator may turn the pile without adding additional water. If the top half of the pile is dry ~~at any level~~ to the three inch depth, apply additional water to the pile pursuant to subparagraph (d)(2)(B).
- (D) If the pile needs to be turned within the first seven days for ~~maintaining~~ managing temperature ~~at or above 131 degrees Fahrenheit for~~ pathogen reduction pursuant to Title 14 Division 7, Chapter 3.1, Section 17868.3 of the California Code of Regulations, the operator does not need to re-apply the screened or unscreened finished compost cover and shall apply water pursuant to subparagraph (d)(2)(B) for the first fifteen days of the active phase.
- (E) The operator may implement an alternate mitigation measure that will be based on a test protocol approved by the Executive Officer, California Air Resources Board, and the United States Environmental Protection Agency and that demonstrates emission reductions by at least 40 percent, by weight, for VOC and emission reductions by at least 20 percent, by weight, for ammonia for combined screened or unscreened finished compost cover and water application.

- (3) Effective (*date of adoption*), the operator of greenwaste composting operations processing greater than 5,000 tons per year of foodwaste throughput shall comply with the following requirements, for the purpose of regulatory compliance:
- (A) Any active phase of composting containing more than 10% foodwaste, by weight, shall be conducted using an emission control device designed and operated with an overall system control efficiency of at least 80 percent, by weight, each for VOC and ammonia emissions.
 - (B) The operator may implement a control alternative if the alternative is approved by the Executive Officer, California Air Resources Board, and the United States Environmental Protection Agency, to achieve VOC and ammonia reductions that are greater than or equal to the reductions required pursuant to subparagraph (d)(3)(A).
 - (C) For new greenwaste composting operations that intend to compost greater than 5,000 tons per year of foodwaste throughput, a permit shall be obtained for an emission control device, as specified in subparagraph (d)(3)(A) or (d)(3)(B), prior to construction.

The annual throughput calculation may exclude any non-putrescible materials, including, but not limited to paper, woody, other low-water, high cellulose materials, and non-compostable contaminants and green waste that are separated either before or after composting and shipped off-site for disposal provided they are quantified and appropriate records are maintained for.

- (4) No later than (*3 months after date of adoption*), for existing greenwaste composting operations that, as of (*date of adoption*), process or plan to process greater than 5,000 tons per year of foodwaste throughput, the operator shall file a permit application for an emission control device and fully implement the emission control device in accordance with subparagraphs (d)(3)(A) or (d)(3)(B) within six months upon approval of the permit application.
- (5) The overall control efficiency required in subparagraph (d)(3)(A) shall be demonstrated by a source test within three months after implementation of the emission control device, or within nine months of permit approval, whichever occurs sooner, and every three years thereafter. For the purpose of this rule, the baseline emission factors to be used shall be 4.25 pounds of VOC per ton of throughput and 0.46 pounds of ammonia per ton of throughput for the active phase of composting only. The Executive Officer may approve the use of alternate baseline emission factors, if the operator demonstrates through the

approved source test that alternate baseline emission factors are representative of uncontrolled operations for that facility

- (6) All emission control devices shall be installed, operated, and maintained in accordance with the manufacturer's operation and maintenance manual or other similar written materials supplied by the manufacturer or distributor of such equipment to ensure that the system remains in proper operating conditions. Such documentation shall be made available to the Executive Officer upon request.
 - (7) All records, including application of screened or unscreened finished compost and water, operation and maintenance of an emission control device, and source tests, shall be kept and maintained at the facility pursuant to subdivision (f).
- (e) Test Methods and Protocol
- (1) For a greenwaste composting operation subject to paragraphs (d)(3) through (d)(5), the operator shall conduct all required source and laboratory tests in accordance with an Executive Officer approved test protocol developed in accordance with the guidelines provided in Attachment A of this rule.
 - (2) For a greenwaste composting operation subject to paragraphs (d)(3) through (d)(5), the operator shall use a District approved laboratory in accordance with the Attachment A of this rule.
 - (3) The following methods shall be used to determine compliance with this rule:
 - (A) SCAQMD Method 207.1 – Determination of Ammonia Emissions from Stationary Sources.
 - (B) SCAQMD Method 25.3 – Determination of Low Concentration Non-Methane Non-Ethane Organic Compound Emissions from Clean Fueled Combustion Sources.
 - (C) SCAQMD Method 1.1 – Sample and Velocity Traverses for Stationary Sources.
 - (D) SCAQMD Method 1.2 – Sample and Velocity Traverses for Stationary Sources with Small Stacks and Ducts.
 - (E) SCAQMD Method 2.1 – Determination of Stack Gas Velocity and Volumetric Flow Rate (S-Type Pitot Tube).
 - (F) SCAQMD Method 2.2 – Direct Measurement of Gas Volume through Pipes and Small Ducts.
 - (G) SCAQMD Method 2.3 – Determination of Gas Velocity and Volumetric Flow Rate from Small Stacks or Ducts.

- (H) SCAQMD Method 4.1 – Determination of Moisture Content in Stack Gases.
- (4) Triplicate samples shall be taken for the following test methods:
 - (A) TMECC 05.08-E – Solvita Maturity Index (April 7, 2002).
 - (B) TMECC 05.08-A – Specific Oxygen Uptake Rate (April 7, 2002).
- (f) Recordkeeping

Records shall be kept in a format approved by the Executive Officer. All operational records and information recorded pursuant to the provisions of this rule shall be maintained for the prior five years of operation, with the most recent two years retained at the facility, which shall be immediately available upon request by the Executive Officer. The remaining three years of records shall be made available to the Executive Officer within one week of request.
- (g) Exemptions
 - (1) Composting facilities subject to Rule 1133.2 – Emission Reductions from Co-Composting Operations, are exempt from the provisions of this rule.
 - (2) If the operator of any greenwaste composting operation installs an emission control device, in accordance with paragraphs (d)(3) through (d)(6), the provisions of paragraph (d)(2) do not apply.
 - (3) The following types of facilities and operations are exempt from the requirements of this rule, provided that the operation is not subject to the Local Enforcement Agency Notification or Permit regulations pursuant to Title 14 Division 7, Chapter 3.1, Section 17857.1 of the California Code of Regulations:
 - (A) Community composting;
 - (B) Nursery composting;
 - (C) Backyard composting; and
 - (D) Recreational facility composting.

ATTACHMENT A

GUIDELINES FOR THE DEVELOPMENT OF SOURCE TEST PROTOCOLS FOR VOC AND AMMONIA EMISSIONS FROM GREENWASTE COMPOSTING OPERATIONS

Source test protocols are to consist of testing plans to measure VOC and ammonia emissions due to the composting process. When used for determining the control device efficiency requirement specified for new and existing facilities, the measurements shall consist of lb/hr measurements at the inlet and exhaust of the control device and are subject to the applicable requirements that follow. When used for determining the overall emission reduction requirements as compared to the baseline emissions factors, emissions are to be reported as % reductions for the active phase composting in terms of pounds of emissions per ton of throughput (total raw material as received) and are subject to the applicable requirements that follow. The following are general requirements for all testing as well as specific requirements for the rule sections for each facility-specific protocol which must be prepared by the source test contractor and approved by the SCAQMD prior to testing.

1. *Alternative Test Methods*

The reference test methods for ammonia, VOC, and flow rate cited in this guideline shall be used to determine compliance with this rule. Alternative test methods may be used if they are determined to be equivalent and approved in writing by the Executive Officer, the California Air Resources Board, and the U.S. Environmental Protection Agency. For the source test protocols, as defined as the manner in which the reference test methods are employed to obtain a measurement of the emissions, alternatives to the procedures cited in this guidelines may be used if they are determined to be equivalent and approved in writing by the Executive Officer.

2. *LAP Requirements*

The sampling, analysis, and reporting shall be conducted by a laboratory/source test firm that has been approved under the SCAQMD Laboratory Approval Program (LAP) for the cited SCAQMD reference test methods, where LAP approval is available. For SCAQMD reference test methods for which no LAP program is available, the LAP approval requirement shall become effective one year after the date that the LAP program becomes available for that SCAQMD reference test method.

3. *Operating Conditions*

The testing must be conducted under representative operating conditions with respect to seasonal conditions, compost composition, process throughput, processing of the materials, and pile geometries. The following operating parameters shall be recorded during testing and reported with the test results:

- a) A thorough description of the composting process and process diagram of each processing area and including residence times in each of the composting process areas.
- b) Process throughput as determined by facility's billing scales or other calibrated measuring device that represents the tons of the material as received that is present at the facility during the time of the testing. When using the District Baseline Emission Factors, the process throughput is to include all of the raw organic materials that are composted excluding material that is recycled from previous similar processing. Several throughputs may be necessary if applicable to the different processing areas or pile ages.
- c) Compost composition (percent and type of materials i.e. manure, greenwaste, foodwaste, etc...).
- d) Age of all piles that were tested and all piles present at the facility during testing.
- e) Detailed dimensions of all piles or the biofilter so that a surface area for each pile type can be calculated.
- f) A description of the biofilter system, including a process diagram and type of biofilter media.
- g) Age of the biofilter media.
- h) A thorough description of the humidification and moisture maintenance system for the biofilter.
- i) Identification of peripheral monitoring equipment, such as moisture or temperature sensors, and data from them during testing.

4. *Ammonia Sampling*

SCAQMD Method 207.1 shall be used to obtain the ammonia samples from each source of emissions to be tested. When sampling from a flux chamber, a sample line of minimal length should be connected to a midget sampling train consisting of; two midget impingers each filled with 15 ml of 0.1N Sulfuric Acid, an empty bubbler, and a bubbler filled with tared silica gel. The samples shall be analyzed for ammonium content as ammonia by ion chromatography or ion selective electrode.

5. *VOC Sampling*

Duplicate integrated gas samples shall be taken from each source of emissions to be tested using SCAQMD Method 25.3. The Method 25.3 apparatus should be connected to sample directly inside the flux chamber or duct as applicable. Compost emissions are considered as water soluble sources where the 50 ppm applicability limit of Method 25.3 does not apply.

6. *Specific Requirements for Testing Greenwaste Composting Operations Control Equipment Performance*

For surface types of emissions, such as with open faced biofilter exhausts, the exhaust emission rate shall be determined as in the following Section (8).

For a control device inlet or exhaust that is vented through a testable duct, the gas velocity within the duct shall be measured according to SCAQMD Methods 1.1, 2.1, and 3.1. The flow rate shall also be corrected to dry standard conditions using the moisture content as determined by SCAQMD Method 4.1. This flow rate may then be used to determine mass emission rates.

The overall destruction efficiency is calculated as follows:

$$\text{ODE} = 100 \times (1 - (E / I)) \quad (\text{Equation 1})$$

Where:

ODE = Overall Destruction Efficiency (%)
E = Total Exhaust Emission Rate (lb/hr)
I = Total Inlet Emission Rate to Control Device (lb/hr)

7. *Specific Requirements for Existing Greenwaste Composting Operations and New Greenwaste Composting Operations (Overall Emissions Reduction)*

A proposed measurement from the active greenwaste composting process, including but not limited to surface emissions of all piles where the materials are composted, and outlets (vents or surfaces) of control devices must be included in the protocol. If the emissions are vented to atmosphere from a vent stack such as from an otherwise uncontrolled aerated static pile or other vent to atmosphere, then the stack concentration, determined using methods specified in Sections (4) and (5) and flow rate measurements as specified in the previous Section (6) are required. From all surface types of emissions such as from compost piles and biofilter surfaces, the procedure for measuring surface emissions as in Section (8) is required. A measurement for fugitive emissions from aerated static pile surfaces must also be included.

Each type of pile must be tested. If the facility includes several identical piles, then only the largest pile need be tested. If the facility has more than three different age piles that are otherwise identical in processing and composition, then at a minimum three ages can be tested including newer, older, and middle aged piles. In any case, the surface area of all piles at the facility must be included in the determination of pile dimensions as recorded in Section (3).

If the facility elects to use an alternative to the District's baseline emissions factors, then a separate test must be conducted to establish this baseline on the uncontrolled composting operation (e.g., windrow method) with the same compost mix. Following the

source test to determine an alternative baseline, facilities would have the option to use the District's baseline emissions factors or the alternative baseline emissions factors.

Reduction of emissions shall be calculated as follows:

$$\% \text{ Reduction} = 100 \times (1 - TE/B) \quad (\text{Equation 2})$$

Where:

TE = Total Active and Curing Phase Emissions (lb/ton throughput)
 B = District Baseline Emissions or Alternative Baseline Emissions if Tested (lb/ton throughput)

8. *Procedure for Measuring Surface Emissions*

The procedure for measuring surface emissions such as the compost pile and biofilter surfaces that cannot be tested by conventional methods through a stack or duct, is a modified form of the procedures found in the US Environmental Protection Agency's (EPA) *Measurement of Gaseous Emission Rates from Land Surfaces Using an Emission Isolation Flux Chamber User's Guide* (EPA Guide). The modification to the procedures in the EPA Guide is specified in the following requirements.

The flux chamber encompasses a fixed surface area of 1.4 ft² and contains a sweep air system to obtain a homogeneous air sample by employing a mixing fan and sweep gas (10% He in air at 5 liters/min recommended). The sweep gas must contain a non reactive and non-present tracer such as the aforementioned 10% helium so that a correction for the contribution of the surface flow rate can be calculated.

A minimum of ten (10) sample locations or a sufficient number at each pile/surface tested must be obtained in order to achieve a representative sample of the surface emissions. These locations can be composited for each pile/surface to reduce testing costs. For example, for one hour sampling, ten (10) random positions on the pile should be tested for 6 minutes each. Alternatively, a lesser number of sample locations may be sampled provided that an evaluation of spatial variation demonstrates that the number of sample locations is sufficient.

The emissions must be reported in units of lb/hr-ft², lb/hr and lb/ton of throughput. The following calculations shall apply to the test results:

$$\text{Surface Flow Correction Factor} = C_t / C_s \quad (\text{Equation 3})$$

Where:

C_t = Concentration of Tracer in Sweep Gas
 C_s = Concentration of Sweep Gas in Flux Chamber Sample

$$\text{Corrected Flux Chamber Results (lb/hr-ft}^2\text{)} = \text{UFC} \times \text{SFCF} \quad (\text{Equation 4})$$

Where:

UFC = Uncorrected Flux Chamber Results (lb/hr-ft²)

SFCF = Surface Flow Correction Factor

$$\text{lb/hr} = \text{lb/hr-ft}^2 \times \text{Total Compost Surface Area in Category} \quad (\text{Equation 5})$$

$$\text{lb/ton throughput} = \text{lb/hr} \times (24 \text{ hr/day}) / \text{PT} \quad (\text{Equation 6})$$

Where:

PT = Process Throughput (total ton/day as received)

$$\text{Total Emissions (lb/ton throughput)} = \sum P \quad (\text{Equation 7})$$

Where:

P = Active and curing sources of the Facility Compost Emissions (lb/ton throughput)

For a facility where not every age of pile was tested, the surface areas from each pile in the facility must be included and sorted into appropriate age and emissions categories from those that were measured.

APPENDIX C

CONSTRUCTION EMISSION CALCULATIONS

Construction Emissions - APCD Installation

Installation of Air Pollution Control Devices (APCDs)

Installation of APCDs at Affected Greenwaste Composting Facilities

Construction Activity
Installing 17 APCD Units at Affected Greenwaste Composting Facilities
Over a 6 Month Period

Construction Schedule - "Worst-case" Complete APCD Installation at 1 location/week (overall 17 installations; avg less than 1/wk)

Activity	Equipment Type	No. of Equipment	Hrs/day	Crew Size
Off-Road Mobile Source Operations	Forklift	1	8	1
Off-Road Mobile Source Operations	Roller	1	8	1
Off-Road Mobile Source Operations	Cement Mixer	2	8	2
On-Road Mobile Source Operations	Delivery Truck	1	-	1
On-Road Mobile Source Operations	Worker Vehicle	10	-	18

- Place prefabricated control equipment into place
- Compact and surface 150' x 150' concrete pad for composting operations
- Supply concrete for pad, two concrete walls/berms and footings for blowers
- Deliver the control equipment

2010 Construction Equipment Emission Factors	VOC	CO	NOx	SOx	PM10	PM2.5	CO2	CH4
Equipment Type*	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr
Forklift (composite)	0.0686	0.2319	0.5161	0.0006	0.0281	0.0281	54.4	0.0062
Roller (composite)	0.1176	0.4212	0.7749	0.0008	0.0547	0.0547	67.1	0.0106
Cement Mixer (composite)	0.0101	0.0434	0.0599	0.0001	0.0035	0.0035	7.2	0.0009

*Equipment is assumed to be diesel fueled.

Source: CARB's Off-Road Mobile Source Emission Factors for Scenario Year 2011

http://www.aqmd.gov/ceqa/handbook/offroad/offroadEF07_25.xls

Construction Vehicle (Mobile Source) Emission Factors for Years 2010	VOC	CO	NOx	SOx	PM10	PM2.5	CO2	CH4
Construction Related Activity	lb/mile	lb/mile	lb/mile	lb/mile	lb/mile	lb/mile	lb/mile	lb/mile
Offsite (Construction Worker Vehicle)	0.00091399	0.00826276	0.00091814	0.00001077	0.00008698	0.00005478	1.09568235	0.00008146
Offsite (Equipment Delivery Truck - HHDT)	0.00304157	0.01195456	0.03822102	0.00004131	0.00183062	0.00160083	4.21120578	0.00014201

Source: EMFAC 2007 (v2.3) Emission Factors (On-Road Vehicles, Scenario Year 2011)

Composite Emission Factors for Passenger Vehicle and Heavy-Heavy Duty Trucks for Scenario Year 2011

http://www.aqmd.gov/ceqa/handbook/onroad/onroadEF07_26.xls

and

http://www.aqmd.gov/ceqa/handbook/onroad/onroadEFHHDT07_26.xls

Construction Emissions - APCD Installation

Construction Worker Number of Trips and Trip Length

Vehicle	No. of One-Way Trips/Day	Trip Length (miles)
Offsite (Construction Worker)	20	25
Offsite (Cement Mixer)	4	50
Offsite (Delivery/Haul Truck - HHDT)	2	50

Incremental Increase in Onsite Combustion Emissions from Construction Equipment

Equation: Emission Factor (lb/hr) x No. of Equipment x Work Day (hr/day) = Onsite Construction Emissions (lbs/day)

Equipment Type	VOC lb/day	CO lb/day	NOx lb/day	SOx lb/day	PM10 lb/day	PM2.5 lb/day	CO2 lb/day	CH4 lb/day
Forklift (composite)	0.55	1.86	4.13	0.00	0.22	0.22	435.17	0.05
Roller (composite)	0.94	3.37	6.20	0.01	0.44	0.44	536.42	0.08
Cement Mixer (composite)	0.16	0.69	0.96	0.00	0.06	0.06	115.97	0.01
Construction Equip TOTAL	1.65	5.92	11.29	0.01	0.72	0.72	1087.56	0.15

Incremental Increase in Offsite Combustion Emissions from Construction Vehicles

Equation: Emission Factor (lb/mile) x No. of One-Way Trips/Day x Number of workers x Trip length (mile) = Offsite Construction Emissions (lbs/day)

Vehicle	VOC lb/day	CO lb/day	NOx lb/day	SOx lb/day	PM10 lb/day	PM2.5 lb/day	CO2 lb/day	CH4 lb/day
Offsite (Construction Worker Vehicle)	0.46	4.13	0.46	0.01	0.04	0.03	547.84	0.04
Offsite (Delivery/Haul HHDT)	0.30	1.20	3.82	0.00	0.18	0.16	421.12	0.01
Vehicle TOTAL	0.76	5.33	4.28	0.01	0.23	0.19	968.96	0.05

Total Incremental Combustion Emissions from Construction Activities (Construction Equipment, Trucks and Workers' Vehicles)

	VOC lb/day	CO lb/day	NOx lb/day	SOx lb/day	PM10 lb/day	PM2.5 lb/day	CO2 lb/day	CH4 lb/day	CO2eq MT/year
TOTAL	2.41	11.25	15.57	0.02	0.95	0.91	2056.52	0.20	16.86
Significant Threshold	75	550	100	150	150	55	n/a	n/a	10,000
Exceed Significance?	NO	NO	NO	NO	NO	NO	n/a	n/a	NO

Construction Emissions - APCD Installation

Total Increase in Fuel Usage From Construction Equipment and Workers' Vehicles

Overall Construction Activity	Total Project Hours of Operation	Equipment Type	Off-Road Fuel (gal/hr)*	Total Diesel Fuel Use (gallons)	Total Gasoline Fuel Use (gals)
Operation of Off-Road Equipment	30	Forklift	2.47	1259.70	N/A
Operation of Off-Road Equipment	30	Roller	3.07	1565.70	N/A
Operation of Off-Road Equipment	60	Cement Mixer	0.33	336.60	N/A
Workers' Vehicles** - Commuting	N/A	Mixed Passenger	N/A	N/A	400.00
Offsite Delivery Trucks***	N/A	Heavy-Heavy Duty Delivery Truck	N/A	113.33	N/A
TOTAL				3275.33	400.00

*Based on CARB's Off-Road Model (Version 2.0) for Equipment Year 2010.

**Assume that construction workers' commute vehicles use gasoline and get 20 mi/gal and round trip length is 50 miles/phase.

***Assume that delivery trucks use diesel and get 15 miles/gallon traveling 100 miles roundtrip; 17 locations

APPENDIX D

OPERATIONAL EMISSION CALCULATIONS

Operational Emissions from Finished Compost Cover Control Measure

Placement of Finished Compost Cover on Active Greenwaste Windrows as VOC Control Measure

Operational Activity:
Operation of Front-end Loader to Place Finished Compost Cover

Operational Schedule - "Worst-case" Scenario: Initial Covering of Windrows at 17 Composting Facilities on Same Day in SCAQMD Basin (based on yearly processing volume)

Activity	Equipment Type	No. of Equipment	Hrs/day	Crew Size
Off-Road Mobile Source Operations	Rubber Tired Loader	1	6	1
Off-Road Mobile Source Operations	Rubber Tired Loader	16	1	16

- Place finished compost over windrows

*Assumes one loader would be utilized per day at each of the 17 facilities.

*Assumes facilities will start a new composting cycle each week on the same day / 52 cycles per year.

*Based on time estimate for application of compost cap of 0.0031 hours per ton obtained from the Modesto/Bakersfield study.

2011 Operational Equipment Emission Factors	VOC	CO	NOx	SOx	PM10	PM2.5	CO2	CH4
Equipment Type*	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr
Rubber Tired Loader (composite)	0.1354	0.4959	1.0771	0.0012	0.0608	0.0608	109	0.0122

*Equipment is assumed to be diesel fueled.

Source: CARB's Off-Road Mobile Source Emission Factors for Scenario Year 2011

<http://www.aqmd.gov/ceqa/handbook/offroad/offroad.html>

Total Incremental Increase in Onsite Combustion Emissions from Operational Equipment

Equation: Emission Factor (lb/hr) x No. of Equipment x Work Day (hr/day) = Onsite Operational Emissions (lbs/day)

Equipment Type	VOC	CO	NOx	SOx	PM10	PM2.5	CO2	CH4	
	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	
Rubber Tired Loader (composite)	2.98	129.93	23.70	0.03	1.34	1.34	2389.48	0.27	
Operational Equipment TOTAL	2.98	129.93	23.70	0.03	1.34	1.34	2389.48	0.27	
Significant Threshold	55	550	55	150	150	55	n/a	n/a	10,000MT/Y
Exceed Significance?	NO	NO	NO	NO	NO	NO	n/a	n/a	NO

Total Increase in Fuel Usage From Operational Equipment (per covering day for 17 facilities)

Overall Activity	Total Project Hours of Operation	Equipment Type	Off-Road Fuel (gal/hr)*	Total Diesel Fuel Use (gallons)	Total Gasoline Fuel Use (gals)
Operation of Off-Road Equipment	22	Rubber Tired Loader	5.05	1888.70	N/A
TOTAL			1888.70	0.00	

*Based on CARB's Off-Road Model (Version 2.0) for Equipment Year 2011.

APPENDIX E

COMMENTS RECEIVED AND RESPONSES TO COMMENTS

E-mail received from City of San Diego on July 1, 2011

Dear Mr. Inabinet:

Thank you for the opportunity to review proposed amended rule 1133.1 and rule 1133.3 and the draft Environmental Assessment (dEA) prepared for these regulations. The City of San Diego operates a 690 ton-per-day commercial composting facility, the Miramar Greenery, located at the West Miramar Landfill. City recycling staff design and implement organic recycling programs to divert material from the landfill to the Greenery. The City plans to continue developing organic diversion programs and promotes the development of new organic diversion facilities. The following comments are provided on the dEA.

Page 1-4

On page 1-4 the dEA states that ozone is formed when VOCs react in the presence of light with NO_x. However, a recent study done by the California Department of Resources Recycling and Recovery (CalRecycle), concluded that VOCs from composting windrows produce ozone at lower rates than other types of VOCs (*An Investigation of the Potential for Ground-Level Ozone Formation Resulting from Compost Facility Emissions*, <http://www.calrecycle.ca.gov/Publications/default.asp?pubid=1369>). The dEA does not address this difference.

SCAQMD Response

The CEQA analysis conducted in the dEA assumes a worst-case scenario. By assuming that ozone is formed when VOCs react in the presence of light with NO_x, the dEA is taking a more conservative approach than assuming that VOCs from composting windrows produce ozone at lower rates than other types of VOCs. Please also be aware that while lesser reactive VOCs may contribute to ozone formation at lower rates, they often contribute to the formation of secondary aerosols at rates higher than those of more reactive VOCs, resulting in exacerbation of fine particulate pollution, for which our Basin population faces the highest exposure burden in the nation.

With regard to reactivity, the attainment demonstration for the Basin and air quality modeling analyses embedded in the Air Quality Management Plan does account for varying levels of reactivity from VOC species emitted from different emission sources to the extent that such information is available. However, in 2006, in meetings with CARB, air districts and the U.S. EPA, air districts expressed concerns that implementing a reactivity-based rule would require detailed chemical formulation data, air district staff would need to identify the appropriate maximum incremental reactivity (MIR) value for each of these ingredients before the overall reactivity could be calculated for the product, and concerns were expressed regarding the ability to enforce a reactivity-based control approach. Nevertheless, the SCAQMD is committed to continue to work with all stakeholders to further explore the feasibility of implementing a reactivity-based approach if and when such an approach becomes available.

Page 2-9

On page 2-9 the dEA does not address potential conflicts with the Scoping Plan developed pursuant to AB32. The AB32 Scoping Plan is an adopted plan for addressing greenhouse gas emissions. It addresses recycling and other waste diversion measures including composting. The dEA may also conflict with local plans to divert waste and reduce green house gas emissions, such as a jurisdictions [sic] Source Reduction and Recycling Element (SRRE), Non-Disposal Facility Element (NDFE), and Siting Plans.

SCAQMD Response

The proposed rule and amendments are not in conflict with any of the measures in AB32. Neither the commenter nor other industry representatives have explained the basis for this assertion nor have they provided data or other information that supports this assertion. It is assumed that this assumption is based on the incorrect notion that the proposed rule and amendments would be too onerous to comply with and, therefore, would cause affected facilities to close down, thus, requiring composting materials to be transported out of the district. This assertion is incorrect for the following reasons. PAR 1133.1 would establish best management practices (BMPs) to better manage stockpile operations associated with chipping and grinding activities. Affected facilities are already subject to the same greenwaste material processing requirements established in Title 14, Division 7, Chapter 3.1 of the California Code of Regulations (CCR). Approximately 70 existing greenwaste chipping and grinding operations or facilities would be affected by the requirements of PAR 1133.1. Based on staff evaluation of the effects of PAR 1133.1 for existing facilities, including a number of site visits, most of these affected facilities are already in compliance with the proposed amendments to Rule 1133.1, so there would be no reason to expect that facilities would be unable to comply with the proposed BMP requirements and there is no reason to expect that facilities would close down or that somehow fewer facilities would be built in the future. As a result, it is not expected that there would be a shift in the delivery of materials for composting from these facilities to alternative facilities located outside of the district.

PR 1133.3 would establish operational BMPs for greenwaste composting operations that produce active or finished compost material from greenwaste-only or greenwaste in combination with manure or foodwaste. PR 1133.3 is applicable to 17 existing greenwaste composting facilities. Based on staff research and industry input from greenwaste composting facilities located within the district, it is expected that the current facilities would comply with PR 1133.3 by making minor adjustments (adding finished compost cover to initial compost piles, adjust watering schedules, etc.) in their current operational BMPs. Based on industry input, it is expected that affected facilities would be able to make the necessary minor adjustments in their operational BMPs at a relatively low cost, further supporting the conclusion that composting facilities would not be adversely affected by the proposed rule or that composting materials would be diverted out of the district. This view is supported by the socioeconomic impact analysis prepared for the proposed project, which showed that the primary economic effects of the proposed project are the loss of four new jobs in the affected industry in the future. Potential adverse environmental impacts associated with these minor adjustments (e.g., increased usage of existing loaders for compost cover) were analyzed in the dEA. Additionally, no existing facilities are expected to be required to install an emission control device without significant increases of foodwaste throughput on an annual basis (i.e., to 5,000 tons per year or more). If the commenter is referring to diversion from the closure of the Puente Hills landfill in 2013, that diversion is in no

way related to the currently proposed rule and amendments. According to a PowerPoint presentation titled “Green Waste Management After Closure of Puente Hills Landfill,” prepared by the County Sanitation Districts of Los Angeles County, diversion of composting material from the closure of the Puente Hills landfill is already expected to occur to other facilities within the district and to areas outside the district. Few, if any, facilities subject to Rule 1133.3 are expected to exceed 5,000 tons per year. Based on staff research, two facilities had plans to add controls because they were planning to process more than 5,000 tons per year of foodwaste.

Finally, the primary intent of the proposed rule and amendments is to reduce criteria pollutant emissions, which are precursors to ozone and fine particulates. Furthermore, the proposed BMPs are intended to prevent anaerobic decomposition of greenwaste and alleviate adverse GHG and criteria pollutant emission impacts resulting from such conditions. Therefore, based on the information above and the emission reduction effects of the proposed project, it is not expected that the proposed rule and amendments would conflict with AB32. While the goal of the state program is to reduce GHG emissions, it is not intended to be at the expense of criteria pollutant control efforts.

Page 2-9 (cont.)

The proposed rule would make it more difficult to obtain facility permits and could decrease the number of new composting operations in the region. Any tonnage expansion of an existing facility OR permitting a new facility would trigger New Source Review and dramatically increase the costs addressed in the AQMD Staff Report and Socioeconomic Assessment. Fewer compost facilities in the region could lead to more green waste being disposed in landfills. Additionally, direct land application of green waste will likely increase. Both of these alternative methods for handling green waste impact public service and could have potential environmental impacts including: ground water contamination, methane generation and emissions, increased emissions due to longer hauling distances between generator and facility, spread of imported pests outside quarantine areas, reduced stewardship of soil resources, increased erosion, and increased water use in landscaping. These effects might cause substantial adverse effects either directly or indirectly.

SCAQMD Response

The comment provides no information or supporting data to support the assertion that the proposed project would make it more difficult for affected facilities to obtain permits. In fact, the proposed rule and amendments do not make it more difficult to obtain facility permits for the following reasons. It is not true that any tonnage expansion of a facility would trigger New Source Review, as permitting would only be required if the facility composts more than 5,000 tons per year of foodwaste and/or composting materials with a foodwaste content greater than 10 percent by weight. Composting in windrow fashion does not require a permit in the South Coast Air Quality Management District. If aerating or controlling or voluntarily installing equipment to control emissions through mechanical means is used because of an increase in the foodwaste component of the composting material, then composting in these situations would require permits. As such, covering an active windrow with finished compost cover is a BMP and does not require a permit within the SCAQMD’s jurisdiction. Therefore, the assertion that the proposed project would lead to increased landfill disposal or greater land application of green waste materials is not justified as the handling of such material is largely unaffected by permitting. For example, the largest windrow composting facility in the region processes more

than 200,000 tons per year of greenwaste, but would not require a composting permit from the SCAQMD because it does not process more than 5,000 tons per year of foodwaste. As a result, the environmental impacts associated with more greenwaste being disposed in landfills that the commenter listed are not likely to occur.

Permitting a new facility would only occur if the facility intends to compost 5,000 tons per year of foodwastes or the facility voluntarily installs controls for other reasons, such as odor control to deal with LEA requirements. If pollution controls are installed, e.g., venting a compost pile to a control device such as biofilter, which would likely be considered BACT, there would be costs involved. Similarly, offsets may be required, but this will depend on the specific type of operation and the actual permitted emissions. In many cases, facilities may be eligible for an offset exemption. Although there could be costs involved for some types of operations, according to the socioeconomic impact analysis for the proposed rule and amendments, these costs would not be expected to be so onerous that it would be more difficult to obtain facility permits.

As demonstrated in the paragraphs above, it is not anticipated that the proposed project would reduce the number of existing and future composting operations in the region. Consequently, the potential impacts associated with reducing the number of composting facilities in the district, e.g., ground water contamination, methane generation and emissions, increased emissions due to longer hauling distances between generator and facility, spread of imported pests outside quarantine areas, reduced stewardship of soil resources, increased erosion, and increased water use in landscaping, would not be expected to occur.

Page 2-28

On page 2-28 of the dEA, no impact to wastewater facilities is identified. However, by discouraging the siting of new composting facilities, opportunities to send food waste and other organic material to beneficial use will be more limited than what would be expected without the proposed restrictions. Therefore the amount of material requiring processing, with its attendant impacts, would be greater than the amount expected if additional facilities were more likely to come online. As pointed out on page 1-6 of the dEA, CalRecycle is planning on 50 to 100 new or expanded organic materials-diverting facilities, but these facilities would be discouraged by the proposed rule.

SCAQMD Response

Neither the commenter nor other industry representatives have explained the basis for the assertion nor have they provided data or other information that the proposed rule and amendments would divert foodwaste to wastewater facilities, presumably by somehow reducing the number of or limiting affected facilities in the future. Please refer to the response to the comment on Page 2-9 above for the rationale explaining why it is not anticipated that the proposed project would reduce the number of existing or future facilities. These same reasons apply to facilities under consideration by CalRecycle. Further, it is very unlikely that the 50 to 100 new or expanded organic materials-diverting facilities that CalRecycle is planning will be handling the quantities of foodwaste to require an air pollution control device, and CalRecycle has not indicated otherwise. Only two facilities/one operator surveyed has indicated that they would reach this level and have already agreed to install applicable controls. As a result, the proposed rule and amendments are not expected to impact wastewater facilities.

Consequently, foodwaste is not likely to be diverted to wastewater facilities because that process requires considerable expense, such as through the creation of material delivery systems and potential modifications to increase capacity. Furthermore, only foodwaste greater 5,000 tons per year and 10 percent by weight would require control of emissions. An increase of foodwaste of that quantity would also likely require substantial expansion to wastewater processing facility systems.

Page 2-40, 2-41

The dEA concludes that the proposed rule provides flexibility regarding compliance. While it may be that existing facilities would not be forced to close, new facilities are less likely to be developed in the future because of increased permitting costs. Because the regulation would discourage new facilities, it is reasonable to conclude that tonnages entering the landfill would be higher than the rates that would be disposed in landfills without this regulation. Thus, there could be an impact on landfill capacity.

SCAQMD Response

The comment appears to concur with staff’s assertion that the proposed project would not “force” existing facilities to close. However, the comment provides no information or data to support the opinion that the proposed rule and amendments would discourage future facilities because of permitting costs. SCAQMD staff disagrees with the assertion that new facilities are less likely to be developed in the future because of permitting costs. Please refer to the response to comment “Page 2-9” for a comprehensive discussion of why costs are not expected to be so onerous that future facilities would not be developed.

Thank you for your consideration of these comments. If you have any questions, please contact Renee Robertson at (858) 627-3308.

Sincerely,
Ken Prue

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Response to Verbal Comments at Working Group Meeting

Comment #1: *SCAQMD's proposed rule and amendments would drive composting materials out of the District.*

The proposed rule and amendments are not in conflict with any of the measures in AB32. Neither the commenter nor other industry representatives have explained the basis for this assertion nor have they provided data or other information that supports this assertion. It is assumed that this assumption is based on the incorrect notion that the proposed rule and amendments would be too onerous to comply with and, therefore, would cause affected facilities to close down, thus, requiring composting materials to be transported out of the district. This assertion is incorrect for the following reasons. PAR 1133.1 would establish best management practices (BMPs) to better manage stockpile operations associated with chipping and grinding activities. Affected facilities are already subject to the same greenwaste material processing requirements established in Title 14, Division 7, Chapter 3.1 of the California Code of Regulations (CCR). Approximately 70 existing greenwaste chipping and grinding operations or facilities would be affected by the requirements of PAR 1133.1. Based on staff evaluation of the effects of PAR 1133.1 for existing facilities, including a number of site visits, most of these affected facilities are already in compliance with the proposed amendments to Rule 1133.1, so there would be no reason to expect that facilities would be unable to comply with the proposed BMP requirements and there is no reason to expect that facilities would close down or that somehow fewer facilities would be built in the future. As a result, it is not expected that there would be a shift in the delivery of materials for composting from these facilities to alternative facilities located outside of the district.

PR 1133.3 would establish operational BMPs for greenwaste composting operations that produce active or finished compost material from greenwaste-only or greenwaste in combination with manure or foodwaste. PR 1133.3 is applicable to 17 existing greenwaste composting facilities. Based on staff research and industry input from greenwaste composting facilities located within the district, it is expected that the current facilities would comply with PR 1133.3 by making minor adjustments (adding finished compost cover to initial compost piles, adjust watering schedules, etc.) in their current operational BMPs. Based on industry input, it is expected that affected facilities would be able to make the necessary minor adjustments in their operational BMPs at a relatively low cost, further supporting the conclusion that composting facilities would not be adversely affected by the proposed rule or that composting materials would be diverted out of the district. This view is supported by the socioeconomic impact analysis prepared for the proposed project, which showed that the primary economic effects of the proposed project are the loss of four new jobs in the affected industry in the future. Potential adverse environmental impacts associated with these minor adjustments (e.g., increased usage of existing loaders for compost cover) were analyzed in the dEA. Additionally, no existing facilities are expected to be

required to install an emission control device without significant increases of foodwaste throughput on an annual basis (i.e., to 5,000 tons per year or more). If the commenter is referring to diversion from the closure of the Puente Hills landfill in 2013, that diversion is in no way related to the currently proposed rule and amendments. According to a PowerPoint presentation titled “Green Waste Management After Closure of Puente Hills Landfill,” prepared by the County Sanitation Districts of Los Angeles County, diversion of composting material from the closure of the Puente Hills landfill is already expected to occur to other facilities within the district and to areas outside the district. Few, if any, facilities subject to Rule 1133.3 are expected to exceed 5,000 tons per year except two facilities that are already planning on using these controls.

Comment #2: *If composting materials are spread to surrounding counties due to SCAQMD’s proposed rule and amendments, PAR 1133.1 and PR 1133.3 would cause the spreading of imported pests.*

Neither the commenter nor other industry representatives have explained the basis for their assertion or provided data or other information that the proposed rule and amendments would drive composting materials out of the district, presumably by somehow reducing the number of or limiting affected facilities in the future. Please refer to response to Comment #1 above for rationale indicating there would be no reason to expect that fewer facilities would be built or existing facilities would be unable to comply with the proposed rule and amendments. Therefore, there is no evidence to support that the implementation of the proposed rule and amendments would facilitate the spreading of imported pests.

Comment #3: *The proposed rule and amendments do not take into consideration the goals of AB32.*

The comment does not provide any information or data supporting the opinion that the proposed rule and amendments would conflict with any of the measures in AB32. It is assumed that this comment is based on the notion that the proposed rule and amendments would result in the closure of existing and future facilities. Please refer to response to Comment #1 above for rationale indicating there would be no reason to expect that fewer facilities would be built or existing facilities would be unable to comply with the proposed amendments. The primary intent of the proposed rule and amendments is to reduce criteria pollutant emissions, which are precursors to ozone and fine particulates. Furthermore, the proposed BMPs are intended to prevent anaerobic decomposition of greenwaste and alleviate adverse GHG and criteria pollutant emission impacts resulting from such conditions. Therefore, based on the information above and the emission reduction effects of the proposed project, it is not expected that the proposed rule and amendments would conflict with AB32. While the goal of the state program is to reduce GHG emissions, it is not intended to be at the expense of criteria pollutant control efforts.