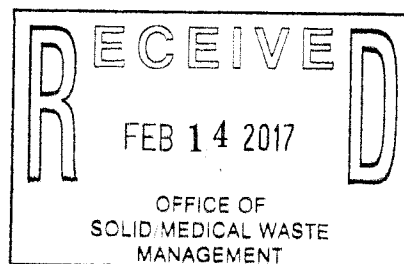




Report of Composting Site Information

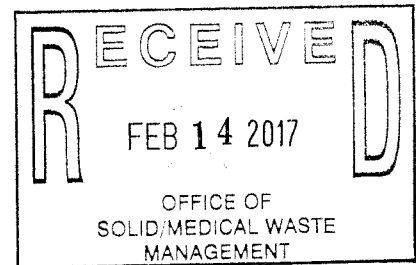


Altamont Landfill Resource Recovery Facility

February 2017

Prepared for:

Waste Management of Alameda County, Inc.
10840 Altamont Pass Road
Livermore, CA 94551



REPORT CERTIFICATION

Report of Composting Site Information

Altamont Landfill Resource Recovery Facility Livermore, California

The material and data in this report were prepared under the supervision and direction of the undersigned.

Cornerstone Environmental Group

A handwritten signature in black ink, appearing to be "SP", written over a horizontal line.

Suzan Pankenier
Senior Project Manager

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Maura Dougherty, P.E.
Senior Project Manager

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1 INTRODUCTION

1.1 General

This Report of Composting Site Information (RCSI) has been prepared for the proposed covered aerated static pile (CASP) compostable materials handling facility at the Altamont Landfill and Resource Recovery Facility (ALRRF) in Livermore, California in Eastern Alameda County. This RCSI satisfies the requirements contained in the California Code of Regulations (CCR) Title 14, Division 7, Chapter 5, Article 3.2, Section 18227; Chapter 4, Subchapter 1; and Chapter 4, Subchapter 3, Articles 1, 2, 3, and 3.1, Section 21570.

1.2 Background

ALRRF is a Class II and III Solid Waste Facility regulated by the Solid Waste Facility Permit (SWFP) issued by Alameda County Environmental Health Department (Alameda County LEA) in 2005. ALRRF's 2005 SWFP allows the facility to receive and process 11,150 tons per day (tpd) of Class II and Class III wastes.

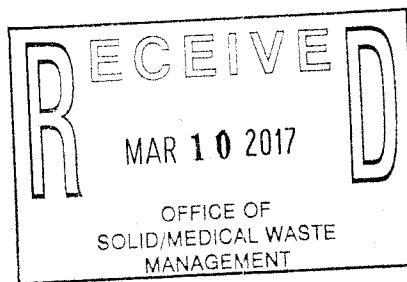
The planned facility is a CASP compostable materials handling facility with a maximum throughput of 500 tpd. The Draft Initial Study/ Mitigated Negative Declaration (IS/MND) for the Altamont Recycling and Composting Facility Conditional Use Permit was prepared in accordance with Public Resources Code Section 21000 et seq. and CEQA guidelines Section 15000 et seq. and issued July 11, 2011. The Resolution of the Planning Commission of the County of Alameda approving the IS/MND for proposed Conditional Use Permit PLN2010-00041 (Resolution #13-09) was issued on March 18, 2013.

1.3 Purpose and Scope

Composting has become an important option for managing a variety of organic wastes. Biological oxidation of the readily decomposable compounds converts organic materials to a stable compost. Properly composted organic materials are suitable for use as a soil conditioner and fertilizer to improve plant growth. Composting diverts materials from landfilling and allows for the beneficial reuse of a waste product.

The current proposal for composting operations to a maximum throughput of 500 tpd at ALRRF advances the following objectives:

- Increase diversion and reduce landfilling of wastes;
- Support State and local efforts to work toward "zero-waste";
- Support Alameda County's green waste (GW) landfill ban, ordinance with an in-county processing solution; and



- Design, construct, and operate a composting facility that minimizes air emissions and other environmental impacts.

Title 14, Division 7, Chapter 3.1, Article 3, Section 17863 of the CCR requires that *"Each operator of a compostable material handling facility that is required to obtain a Compostable Materials Handling Facility Permit... shall, at the time of application, file a Report of Composting Site Information with the EA. If the operator intends to alter the permitted feedstock, these changes must be reported to the EA for maintenance of permit status. Such changes may become the basis for revisions to the permit or for revocation of the permit."*

This RCSI provides the required information regarding the proposed composting program at ALRRF.

1.4 Owner and Operating

The CASP compostable materials handling facility (CMHF) will be owned by Waste Management of Alameda County, Inc. (WMAC), located at:

Waste Management of Alameda County
172 98th Avenue
Oakland, CA 94602

and operated at ALRRF, located at:

Altamont Landfill and Resource Recovery Facility
10840 Altamont Pass Road,
Livermore, California 94551

Telephone: (925) 455-7300

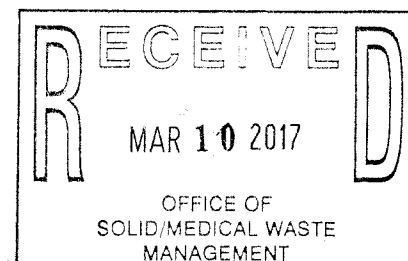
The District Manager, based at ALRRF, is responsible for the composting facility operations and will be the primary contact for regulatory agencies.

ALRRF is owned by WMAC, a subsidiary of USA Waste of California, Inc. (USA Waste).

1.5 Site Location

ALRRF is located in eastern Alameda County, California, approximately 9.6 miles northeast of central Livermore and 13 miles west of central Tracy. ALRRF is just north of U.S. Highway 580. A site location map is presented as Figure 1.

ALRRF is accessed from U.S. Highway 580 via Altamont Pass Road, a private two-lane paved road. The assessor parcel number (APN) for the entire site is APN 99B-6275-1-1.



1.6 Site Plan

The composting facility generally occupies an approximately 40.5 acre area located within the ALRRF property boundary, inside the permitted landfill operations boundary north of Fill Area 1, as shown on Figure 2. Finished compost may be stored on Fill Area 1 dependent on space requirements for the curing area up to another 20 acres at any one time, resulting in a total facility acreage of approximately 60.5 acres with inclusion of the contact water impoundment. The landfill property covers approximately 2063.6 acres, 472 acres of which are permitted for operations associated with management and disposal of solid waste. Operations associated with the waste management include: disposal of mixed municipal solid waste (MSW) disposal, leachate and stormwater collection and storage, administrative uses, facility operations, maintenance, and levees. Approximately 990 acres of the property are reserved for an environmental conservation easement area.

Figure 3 shows the general layout of the CMHF facilities including the composting pad, curing piles, and compost contact water impoundment. It should be noted that CCR Title 14, Division 7, Article 5, Section 17865 (Siting on Landfills) does not apply to this facility as no composting activities will occur over the waste footprint other than storage of stabilized compost.

1.7 Adjacent Land Uses

ALRRF is located in a sparsely populated area. ALRRF lies within an area zoned as "A" District and is primarily used for agricultural purposes (public utility and sanitary landfill uses are granted within this designation through the issuance of a conditional use permit [CUP]). Adjacent land uses include dry-land farming, cattle grazing, and power-producing windmills. Subsidiaries of FPL Energy, Inc., lease portions of the ALRRF property for the installation and operation of power-producing windmills. The general area of ALRRF is designated in the Alameda County General Plan [1994] as Agricultural/Open Space (Open Space Element) and as Large Parcel Agriculture (East County Area Plan). ALRRF is in conformance with the current County of Alameda Countywide Integrated Waste Management Plan (CoIWMP) [Alameda County, 2004].

Land uses within 1,000 feet (ft) of the ALRRF facility boundary and within one mile of ALRRF waste disposal unit boundaries (i.e., FA1 and FA2) and structures on adjacent property are shown on Figure 5, which also shows predevelopment topography. Distances from the facility boundary to several features are summarized as follows:

- Nearest residence - within 3000 ft;
- Nearest school - greater than five miles;
- Nearest hospital - about five miles; and
- Nearest airport - greater than five miles.

2 COMPOSTABLE MATERIALS HANDLING FACILITY

This section addresses the information required by CCR Title 14, Division 7, Chapter 5, Article 3.2, Section 18227 regarding the RCSI content.

2.1 Composting Process

Title 14, Article 3.2, Section 18227 (a) of the CCR requires that a RCSI contain *"A description of the processes to be used, including estimated quantities of feedstocks, additives, and amendments."*

2.1.1 General

Composting is the biological decomposition of organic material under aerobic (in the presence of oxygen) conditions. Composting is a self-limiting biological process. Conditions that limit the microbial population include: nutrient availability, temperature, aeration, moisture content, and pH. Balancing these conditions optimizes air distribution, temperature control, and the decomposition rate (composting period) as well as limits emissions and odors since the operation remains aerobic throughout the composting period.

Green waste at ALRRF would be received from the general public, agricultural operations, curbside collection, and commercial programs. The compost feedstock at ALRRF would contain green waste, clean dimensional lumber, agricultural materials (such as grape pomace and animal manures), residential and commercial food waste, mixed solid waste organics diverted from MSW recycling, and potentially digestate from anaerobic organics processing facilities.

The composting process produces heat as a result of bacteriological metabolism. Initially, the heat generated by bacteria elevates the temperature to approximately 122 degrees Fahrenheit (°F) or more. Over time and under the proper conditions (i.e., the presence of oxygen, water, and nutrients), the microorganisms are self-limiting and the temperature stabilizes between 131°F and 160°F (US Composting Council, 2009). Temperatures are monitored to ensure that the prescribed regulatory period of 72 consecutive hours at 131°F are met for the Process to Further Reduce Pathogens (PFRP).

Maintaining the proper moisture content for a composting pile is important; for the proposed composting operations at ALRRF, the optimum water content lies around 50 percent. If the pile is too dry, the microbes go dormant, therefore, moisture is added as needed in order to maintain the proper water content. If the pile is too wet, saturated conditions can cause the pile to become anaerobic due to lack of oxygen circulation.

2.1.2 Feedstock Preprocessing

In preparation for the active composting phase, feedstock materials are pre-processed by grinding. Grinding of the feedstock reduces the volume of material and provides a relatively uniform mixture of material and particle size.

ALRRF anticipates receiving up to 500 tpd of compostable feedstock including green waste, clean dimensional lumber, agricultural materials (such as grape pomace and animal manures), residential and commercial food waste, mixed solid waste organics diverted from MSW recycling, and potentially digestate from anaerobic organics processing facilities. The feedstock will be the organic fraction of processed organics from MSW recycling. The level of contamination may be higher than one percent upon receipt at the CASP operation, however unprocessed MSW will not be used as compost feedstock. Screening after composting will remove the additional contaminants to an acceptable level prior to selling the material as compost, and an additional presort or prescreening may also be utilized to reduce the final amount of contaminants to acceptable levels.

For reference, ALRRF is permitted for 11,500 tpd of Classes II and III waste for disposal under its SWFP. The CASP compost facility will receive a maximum annual tonnage per the Bay Area Air Quality Management District (BAAQMD) Title V Permit to Operate (PTO). On average the facility anticipates receiving feedstock at 500 tpd for six days per week for 52 weeks per year to equal 156,000 tons per year. The total annual throughput will not exceed the annual tonnage as dictated by the BAAQMD PTO.

The composting area features an approximately 10-acre gravel (or other improved surface such as asphalt or concrete) pad at the location shown on Figure 2, where receiving, grinding, and active composting occur. As shown on Figure 3, feedstock materials, which may be contaminated (plastic, glass, etc.) will be brought to the "Material Receiving and Processing Area" for grinding and processing. Following grinding, the compost "recipe" will be assembled with a combination of yard wastes and food wastes and blended to a uniform mixture. The initial density of the compost mix is assumed to be 0.45 tons per cubic yard, a value determined through pilot testing at the Redwood Landfill CASP compost facility. Water will be added to the material as necessary to maintain proper moisture conditions. Materials that may be additives to the processed feedstock include: gypsum, dolomite, lime, recycled wall board and other materials suitable for additives in composts as market conditions determine.

Green waste feedstock material received will be processed within 72 hours of receipt and to be in compliance with the requirements of the BAAQMD ATC, once issued, or up to 7 days of receipt with LEA review and approval so that it does not decompose in the storage piles and generate odor on-site. Any loads containing primarily food material will be processed into other feedstocks sooner if necessary. In the event of an equipment breakdown or other unforeseeable circumstance that would prevent the processing of green waste within 72 hours material may be stockpiled for no more than seven days. Should feedstock not be

processed within the time required, ALRRF will cover the material in place with curing compost to mitigate odors, or rental equipment will be obtained to process materials while the broken equipment is fixed. If ALRRF cannot process feedstock, it will be redirected to another facility or landfilled as appropriate and approved.

2.1.3 Covered Aerated Static Pile Composting

Following grinding and processing, the materials are hauled to the compost pile area and placed in piles of varying sizes depending on the density of incoming materials, on top of a gravel pad, as shown on Figure 3. The piles are constructed using a loader, staking conveyer, or similar equipment to stack the material. Underlying the piles are perforated pipes, providing pile aeration (Figure 4).

After the piles are constructed, they are covered with a minimum of six-inches of finished compost material (which may consist of screened or unscreened compost and/or compost overs). During positive aeration, the finished compost cover controls emissions and odors. The compost cover itself is moisture conditioned through the active composting phase as needed to maintain its effectiveness in controlling emissions and odors.

The composting piles are instrumented with automated temperature probes for monitoring the temperature throughout the composting process. Temperature measurements for pathogen reduction for the aerated static pile composting processes shall be monitored 12 inches to 18 inches from the point where the finished compost meets the active compost, with at least one sensor to every approximately 200 cubic yards of compost, in accordance with the CCR, Title 14, Chapter 3.1, Article 7, Section 17868.3(c). At least one temperature reading shall be collected each day during the pathogen reduction period.

Based on monitoring and operational protocol, the aeration system is activated to induce airflows through the piles. The aeration timing and flow rates are varied as needed to optimize the composting process and minimize odors. Composting piles remain on the pad for three to five weeks prior to moving to the curing area, with variation in composting time depending on feedstock composition, temperature, moisture, season of the year, and stability of the compost at the end of the active phase.

2.1.4 Post-Processing of Compost

Once the compost has completed its PFRP phase, and the compost is nearing the end of its active phase, the compost piles are dismantled and hauled to the curing area. Curing allows the compost material to mature and is essential in the development of a high quality product. Material placed in the curing area will typically cure for one to three months. Depending on production commitments and other factors, curing windrows may periodically be turned to enhance and shorten the curing process. Moisture may also be added to the windrows as needed to maintain suitable curing conditions. Temperature readings are collected and recorded on an as needed basis from the curing piles.

The composted materials are then screened to remove oversize particles and contaminants (plastic, glass, etc.) and provide a final compost product specific for its end use. Oversize material is sold to third parties, used as compost cover, used on-site by ALRRF as mulch or for erosion control, used as alternate daily cover (ADC) within the landfill, used as extender material for the solidification process, or used as other beneficial uses as allowed or approved by the LEA. Some feedstock materials may be initially received and composted with high levels of non-compostable contaminants such as plastic, glass, etc. In the post processing phase these contaminants will be screened as necessary to remove contaminants in order to create a finished product which is suitable for its intended end use. Depending on end use contaminant levels may vary and higher quality screened overs may be sold as a compost product.

2.2 Facility Operation

Title 14, Article 3.2, Section 18227(b) of the CCR requires that an RCSI contain *"A descriptive statement of the operations conducted at the facility."*

ALRRF anticipates receiving up to 500 tpd of compostable feedstock. As shown on Figure 3, feedstock materials will be brought to the materials processing and receiving area for grinding and processing. Following grinding, the compost "recipe" will be assembled with a combination of yard wastes and food wastes and blended to a uniform mixture. The initial density of the compost mix is assumed to be 0.45 tons per cubic yard. Water, liquid organics, and other additives such as compost overs or wood waste may be added to the material as necessary to maintain proper moisture conditions, bulk densities, and finished compost properties.

The proposed composting operation is located within the ALRRF property boundary, with active composting operations performed inside the permitted landfill operations boundary (Figure 2). The following presents the current operations at the facility which are conducted in support of the composting operations. A detailed description of feedstocks received, daily tonnages, and the composting process for ALRRF are presented in Sections 2.1.1 and 2.1.2 above.

The feedstocks received and daily tonnages and the method of composting are further described in the following sections.

2.2.1 Composting Facility Access

The composting facility will be accessible by an all-weather access road, which runs eastward from the main access road to the landfill disposal operations. All third party traffic traveling to and from the composting facility must pass through the scale house for identification, sign-in and weighing, load screening, and unloading directions.

2.2.2 Composting Facility Hours of Operation

Composting operations may occur 24 hours a day, depending on tasks necessary to be completed. The permitted hours of operation will be seven days per week on an as-needed basis. Feedstock will typically not be delivered on Sundays, however CASP operations may occur dependent on need, and if necessary, waste will be received on Sundays to meet demand. The composting operations will generally correspond with the landfill operations including scheduled days of closure of the entire facility for holidays. Current Facility holidays include Thanksgiving Day, Christmas Day and New Year's Day. Sunday and holiday waste receipts, if necessary, will be from contract customers only and the Facility will not be open to the public.

Public access will correspond with the landfill public access hours of Monday through Friday between 6AM and 4PM.

2.2.3 Composting Facility Operation

2.2.3.1 Unloading

Incoming feedstock materials are unloaded directly onto the materials receiving and processing area (Figure 3) of the composting pad. Wind-borne material is typically not a problem because the organic feedstocks are relatively coarse and already fairly moist. If a load is deemed unacceptable by site personnel for processing in the compost operation, it is either rejected or redirected to the landfill for disposal per section 2.2.3.5.

2.2.3.2 Salvaging

Non-compostable materials such as scrap metal, large tree stumps, and rocks are separated from the compostable material prior to grinding and processing. Site personnel remove the non-compostable materials by hand and with a loader. Adequate equipment is available to contain and remove salvaged materials, and these materials are recycled or disposed in the landfill on an as needed basis. Scavenging is not permissible per 2.2.3.4.

2.2.3.3 Material Preparation

Feedstock materials are processed by grinding to increase surface area and provide a more uniform mixture and particle size. The composition of any one CASP may be a mixture of any or all types of inbound feedstocks. All incoming green waste feedstock material is processed within 72 hours of receipt, as required by the regulations to reduce the generation of odors on-site, however typical operations will consist of compost materials being processed by the next operating day.

2.2.3.4 Scavenging

Due to its location away from the working face of the landfill and lack of material typically desired by scavengers or staff, scavenging is not a foreseen problem at the composting operation. Scavenging is prohibited at ALRRF, except for authorized materials recovery programs by authorized personnel. Customers are prohibited from scavenging materials from ALRRF.

2.2.3.5 Removal of Non-Compostable Materials

Large, bulky items that could damage equipment or are undesirable for composting are removed by the operator prior to processing. These materials are hauled to the active landfilling area for disposal as needed. Inert materials such as scrap metal, large tree stumps, and rocks which may be included in the feedstock, may be stored in piles or bins similar to storage of other inert items at the Facility, in the CASP area. These materials will be removed from the CASP area within 7 days of receipt as required by the current regulations.

Some examples of unacceptable loads may be organics contaminated with a liquid material such as paint or pesticides, loads contaminated by an invasive species which is prohibited from introduction into the composting process, or highly odorous loads which have begun significant anaerobic decomposition and composting is likely not to reduce the odors to acceptable levels quickly enough to be in compliance with the facility OIMP. Disposal of complete loads of materials is not expected to occur often and these tons will be tracked and reported as required for all tons entering the composting facility.

Treated wood waste is not acceptable for receipt at the composting facility. If treated wood waste is found in the organics feedstock it will be removed and stockpiled in the residuals area separately from the other materials and managed in accordance with the requirements of the Department of Toxic Substances Control. The treated wood waste will be taken to the Class II landfill unit for disposal at a minimum every 7 days. Per the current regulations, the treated wood waste stockpile must not exceed 1,000 pounds, else must be disposed that same day in the landfill.

2.2.3.6 Load Checking

All third party open bed trucks are visually inspected at the scale house prior to acceptance of compostable waste materials and unsuitable materials are rejected or redirected in accordance with Section 2.2.3.5. It is anticipated that, the majority of material received will be pre-screened at the Davis Street Transfer Station (DSTS). At a minimum, one truck per day or ten percent of daily incoming feedstock volume delivered in closed containers/trucks, whichever is greater, is visually inspected at the receiving area of the compost pad by ALRRF, in accordance with the CCR, Title 14, Chapter 3.1, Article 7,

Section 17868.5(a)(1). Loads may be rejected or redirected for disposal in the landfill if they are deemed unacceptable feedstocks for composting.

A load check record form to be utilized by the facility has been included as Appendix E.

2.3 Facility Layout

Title 14, Article 3.2, Section 18227(c) of the CCR requires that a RCSI contain *"A schematic drawing of the facility showing layout and general dimensions of all processes utilized in the production of compost including, but not limited to, unloading, storage, processing, parking, and loading areas."*

The composting facility will be located just north of Fill Area 1 within the ALRRF property (Figure 2). The feedstock receiving and active composting area will be located on an approximately 10-acre improved (gravel or other material) composting pad. As shown on Figure 3, feedstock unloading, storage, grinding and mixing processing areas will be located in the center of the pad and composting piles will be located on the east side of the pad. Figure 4 presents schematic details for the compost pile aeration system.

Figure 2 shows the locations of the compost contact and quench water impoundment, and unpaved curing pad areas for curing, screening and storing composted materials.

Physical contaminants will be removed and stored in piles or containers near the materials receiving area of the CASP. The contaminants which cannot be readily reused or recycled will be hauled to and disposed in the landfill working face, and estimated volumes will be recorded. All residuals will be removed from the CASP operations area within 7 days as required per the current regulations for composting facilities.

2.4 Environmental Controls

Title 14, Article 3.2, Section 18227(d) of the CCR requires that the RCSI contain, *"A description of the proposed methods used to control leachate, litter, odors, dust, rodents, and insects."*

The facility will comply with the associated requirements and permits for the facility. General operating standards will comply with Article 6, Section 17867. These standards will include methods for minimizing odors, minimizing nuisances (e.g. vectors, litter, noise, etc.), controlling site access, controlling traffic and fire prevention. Please see the sections below for descriptions of the proposed control methods.

2.4.1 Compost Contact Water and Storm Water Control

Please see Appendix A for the ALRRF CASP Water and Wastewater Management Plan.

2.4.2 Air Pollution Control

ALRRF applied for a Title V PTO for the composting facility with the BAAQMD in July 2014. ALRRF is currently awaiting the Authority to Construct (ATC) from the BAAQMD for the composting operations. The landfilling process itself is a source contained in the Site's Title V permit administered by the BAAQMD (2014). Air quality Best Management Practices (BMPs) presented in the air permit application will be implemented by ALRRF in the operation of the composting facility.

2.4.3 Nuisance Control

Composting operations are conducted in a safe and sanitary manner adhering to the site permit requirements. The ALRRF's relatively remote location creates very little potential for public nuisance. The two areas of potential concern are wind-blown litter and tracking of mud onto Altamont Pass Road during wet weather. Mud tracking is minimized with diligent internal road maintenance including periodic cleaning of the internal roads. In addition, all trucks leaving the compost facility during wet weather will be routed through the site truck wash located at the site scale facility. The following sections describe those measures established by the ALRRF to minimize and/or eliminate those nuisances associated with the operation of a typical composting. Scavenging is prohibited at ALRRF, except for authorized materials recovery programs by authorized personnel. Customers are prohibited from scavenging materials from ALRRF.

WMAC takes the following approach to responding to odor (as outlined in Section 4 of the OIMP) and noise complaints at the ALRRF:

- Any such complaints would be directed to the Environmental Protection Specialist and/or District Manager;
- Complaints are responded to promptly by following up with the individual and/or agency representative that has made the complaint. The exact nature of the complaint (time, description, etc.) is obtained in order for the facility to be able to determine if, or how, site operations may have been the cause; and
- If applicable, facility operations and/or procedures are modified to address the root cause of the complaint.

In accordance with Article 8, Section 17869, records will be maintained by the facility to document any public complaints received by the operator, including: the nature of the complaint, the date the complaint was received, if available, the name, address, and telephone number of the person or persons making the complaint, and any actions taken to respond to the complaint.

2.4.4 Dust Control

ALRRF composting operations will implement the Dust Control Plan as followed for the landfilling operations, or will develop a composting operations specific dust control plan once the specific requirements, if any, are provided in the PTO issued by the BAAQMD. Handling activities will be conducted in a manner that minimizes human contact with, inhalation, ingestion, and transportation of dust, particulates, and pathogenic organisms. Water trucks will be utilized on the composting pads and roads as necessary to minimize dust similar to the landfill operations.

2.4.5 Vector and Bird Control

The following pest management practices are implemented to minimize the potential impact of vectors and birds on the composting operation:

- During the active composting phase, the blower and air sparger system will provide proper aeration and prevent fly and gnat propagation;
- The active compost piles will be covered with a minimum of six inches of finished composting material to aid in vector control;
- Good housekeeping practices minimize insect breeding and nesting areas; and
- ALRRF personnel perform routine monitoring for insects and potential nesting areas.

The ALRRF has instituted a control program with the aid of the Alameda County Agriculture Department. Rodent/vector controls, in accordance with Alameda County practices, control and prevents the propagation, harbor or attraction of flies, rodents, birds or other vectors. ALRRF will use current bird control practices utilized at the landfill, as necessary, to control the bird population. Current practices include the use of bird cannons, screamers and a depredation permit, but are subject to change in the future. Additionally, successful bird dispersion techniques used at other landfills or compost facilities may be implemented, as necessary.

2.4.6 Litter Control

Litter resulting from composting operations is collected on a routine basis. Fixed/permanent and portable fences may be used in potential source areas to minimize the migration of litter. Commercial haulers are also warned by signage that incoming loads are to be properly covered and uncovered only in designated areas.

2.4.7 Noise Control

Noise levels of operating equipment are controlled through proper maintenance. Noise protection devices are provided to all employees as required as a part of the site health and safety plan.

2.4.8 Odor Impact Minimization Plan

Title 14, Article 3.2, Section 18227(n) of the CCR requires that a RCSI contain *"An Odor Impact Minimization Plan pursuant to section 17863.4."*

The ALRRF Odor Minimization Plan (OIMP) for the composting facility and operations described in this RCSI is included in Appendix B.

2.4.9 Traffic Control

Traffic control is maintained at ALRRF to ensure that traffic flow into, on, and out of the site minimizes interference and safety problems for customers and for traffic on adjacent and adjoining public roads. Access to ALRRF can be accomplished by exiting I-580 at North Greenville Road and turning onto Altamont Pass Road, which is a two-lane county roadway with asphaltic-concrete surface (Figure 2). Most traffic accesses ALRRF from the west leg of Altamont Pass Road. Traffic entering from the west utilizes a left-hand turn lane and crosses one lane of oncoming traffic, which is normally light. The ALRRF entrance is located along a straighter section of the road allowing clear visibility of oncoming traffic.

All traffic associated with the composting operation passes through the main facility entrance and scale house and is then directed toward the composting facility processing area. General traffic patterns at ALRRF are shown on Figure 2 and those at the composting facility are shown on Figure 3. The facility is of adequate size and shape to accommodate large trucks and has been designed to minimize traffic crossovers.

Adequate driving/loading lanes for equipment and loading operations are maintained on the inside of the CASP allowing operating space for transfer trailers, articulated dump trucks, etc.

2.5 Emergency Provisions

Title 14, Article 3.2, Section 18227(e) of the CCR requires that a RCSI contain *"A description of the proposed emergency provisions for equipment breakdown or power failure."*

Equipment is maintained by an on-site maintenance department. Routine maintenance schedules have been developed by ALRRF and are tracked through an intercompany computer database known as "Compass"¹.

ALRRF also continually evaluates the need for equipment to effectively operate the landfill and composting processing areas. For unusual situations that require specialized or additional equipment, ALRRF will rent or lease the appropriate equipment from local contractors or suppliers who carry the specialized equipment required for compost operations. This includes hiring a contractor to process green waste in the event that ALRRF's equipment is down for maintenance.

Because equipment utilized in the composting operation (including loader, grinder, water truck, and screener) are powered by diesel fuel, potential power outages will not affect these composting facility operations.

The aeration system is powered by a system of electric blowers. Should a blower have mechanical issues, a back-up blower is available. A dedicated power line serves the blowers to avoid overdrawing power from the ALRRF electrical system.

In the event of a power service interruption, the electric powered blowers will not be able to be powered by generators. Windrow machinery or bucket loaders will be used to turn the piles in the event the material is not able to be aerated after seven days.

2.6 Storage

Title 14, Article 3.2, Section 18227(f) of the CCR requires that a RCSI contain "*A description of the storage capacity and anticipated maximum and average length of time compostable materials will be stored at the facility.*"

There will be an estimated 30,000 to 35,000 cubic yards (cy) of active composting material on-site in aeration, at any given time, within the compost piles. Site facility total acreage is 60.5 acres in total. This includes approximately 10 acres for receipt of feedstocks and active composting, 28 acres for curing piles, approximately 2.5 acres for the contact water pond, and approximately 20 acres on Fill Area 1 for storage of stabilized and finished compost as required to accommodate seasonal demands. Based on approximate dimensions of curing piles and finished product piles, there is a potential storage capacity for more than one year's worth of inbound materials, approximately 156,000 tons, at the CASP compost facility.

¹ Compass is a WM computer database that keeps operators fully up-to-date on the maintenance status of site equipment. It alerts the maintenance staff when repairs and maintenance are needed, tracks when they are done, and monitors machine hours to determine when rebuilds are necessary. The status, service history, repair, and maintenance needs of each machine can be accessed at any time.

For storage of stabilized and finished compost on the landfill waste footprint of Fill Area 1, the acres utilized at any one time will not exceed 20 acres in total. Storage locations may vary annually due to items such as current active waste filling areas, locations of other stockpiles such as soil or other cover materials, or temporary road locations on the intermediate cover. ALRRF will ensure that windblown litter from the active landfill operations will be removed from the compost products stored on the landfill footprint prior to sale, and that storm water runoff will not be impeded by compost product stockpiles.

ALRRF anticipates the average length of time that compostable materials will be stored at the composting facility is about four to 12 months. The length of time from receipt of feedstock to placement in the finished compost storage area will be approximately three to six months. Since the sale of compost is generally seasonal, the length of time from finished compost storage to the end of storage (e.g. sale) will be approximately six to nine months depending on the time of year of production of the compost product. Based on the annual composting capacity of 156,000 tons per year (tpy) (which does not account for densification of materials from feedstock to finished compost), ample storage capacity is available.

2.7 Equipment

Title 14, Article 3.2, Section 18227(g) of the CCR requires that a RCSI contain *"A description of compostable materials handling equipment used at the facility including type, capacity, and number of units."*

The types and amounts of equipment may vary over time depending on the need and operational efficiency, however at this time the following equipment is planned for use in daily operations of the composting facility at ALRRF:

- A minimum of two loaders with high capacity buckets to move product and feed the grinder and trommel screen;
- A grinder or shredder with a processing capacity of 80 tons per hour (tph) for grinding feedstock;
- A water truck with a capacity of 3,000 gallons for dust control and to supply quench water as needed. Water trucks may be shared between the composting and landfill operations, however landfill leachate will not be utilized on the compost piles;
- A trommel screen with a processing capacity of 80 tph to screen finished compost;
- Aeration equipment including blowers, piping and controls to operate the compost aeration system; and
- A minimum of two dump trucks will be used to move materials to each new phase of the composting process. These dump trucks may be dedicated to the composting operation or shared with the landfill operations as needed.

2.8 Annual Capacity

Title 14, Article 3.2, Section 18227(h) of the CCR requires that a RCSI contain *"Anticipated annual operation capacity for the facility in cubic-yards."*

The CASP compost facility will receive a maximum tonnage per the BAAQMD Title V PTO. ALRRF anticipates to operate at 156,000 tons per rolling 12-month period and a maximum of 500 tpd. The anticipated times required for the active composting phase is about four weeks and for the curing phase, about one month to several months depending on production requirements. The initial bulk density of processed feedstock materials placed into the composting piles is approximately 0.45 tons per cubic yard (cy), therefore, the annual operational capacity of the facility (i.e. the permitted capacity in tons divided by the feedstock density in tons per cy) is approximately 346,700 cy.

2.9 Peak Loading

Title 14, Article 3.2, Section 18227(i) of the CCR requires that a RCSI contain *"A description of provisions to handle unusual peak loadings."*

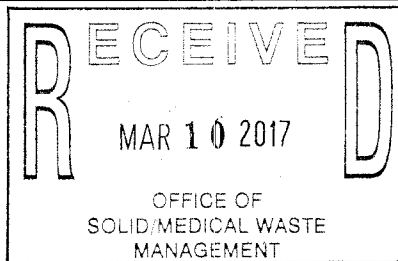
The design and annual operational capacity of the ALRRF composting facility is proposed to be approximately 156,000 tpy (Section 2.6 of this report) and unusual peak loading is not of concern. The operator will stop accepting materials after reaching 500 tpd unless an exception is granted by the LEA.

Should a State of Emergency occur and an intake of compostable material be required that surpasses the allowable daily loading, ALRRF will seek regulatory permission and consent from its customers to accept green waste in excess for cover and disposal if there is not adequate composting capacity available at the time to process the excess materials.

2.10 Non-Recoverable and Unmarketable Residues

Title 14, Article 3.2, Section 18227(j) of the CCR requires that a RCSI contain *"A description of the proposed method for storage and final disposal of non-recoverable or nonmarketable residues."*

Compost "overs" or pieces large enough that they are left "over" after the screening of finished compost, may be mixed back in with the compost feedstock as a bulking agent to create the appropriate porosity for airflow. Selected overs are also sold to third parties. Other uses for overs are as ADC on the landfill, as mulch on side slopes at the landfill or other areas of the facility for erosion control, extender materials for solidification, as biofilter material on the cap of the compost piles, or other beneficial reuses on-site. Any excessive garbage materials found in the feedstock or after screening is moved to the working face and landfilled. Any other residues that cannot be re-used are disposed in the landfill.



Overs used as ADC on the landfill will be tracked to record tonnages used. Per Title 27, Division 2, Chapter 3, Subchapter 4, Article 2, Section 20690(8), overs used as ADC will be restricted to a minimum compacted thickness of six inches and average compacted thickness of less than or equal to 12 inches. Materials will comply with a grain size specification by volume of 95 percent less than six inches. Public contact will be precluded from materials which do not meeting the environmental health standards of Title 14, Division 7, Chapter 3.1, Article 7.

Materials will also comply with Title 14, California Code of Regulations, Division 7, Chapter 3.1, Article 7, Section 17868.2 maximum metal concentrations as follows:

Constituent	Concentration milligrams per kilogram on dry weight basis
Arsenic	41
Cadmium	39
Copper	1500
Lead	300
Mercury	17
Nickel	420
Selenium	100
Zinc	2800
Chromium	No Limit, must maintain test results w/ other metals concentration

Materials will also comply with Title 14, California Code of Regulations, Division 7, Chapter 3.1, Article 7, Section 17868.3. The density fecal coliform in compost shall be less than 1,000 Most Probable Number per gram of total solids (dry weight basis), and the density of Salmonella sp. Bacteria in compost shall be less than three Most Probable Number per four grams of total solids (dry weight basis). The active compost shall be maintained at a temperature of 55 degrees Celsius (131 degrees Fahrenheit) or higher for a pathogen reduction period of 3 days.

2.11 Water Supplies

Title 14, Article 3.2, Section 18227(k) of the CCR requires that a RCSI contain *"A description of the water supplies for process water required."*

Quench water for the incoming feedstock may be obtained from the collected compost contact water. The quench water will consist of compost contact water and precipitation collected from the compost pad which is collected and stored in the new compost contact water pond. This water may also be used to keep the CASP cover moist if necessary, for dust control, and on the compost curing piles if reintroduction of pathogens is deemed not to be of concern based on test results from the pond as required per the requirements of the WDRs.

Other water available for use in all aspects of the composting process may be obtained from either the Alameda County Water Agency, Zone 7 aqueduct supply, with ALRRF's existing water rights, or other stormwater collection basins on-site including stormwater collected from the compost curing area of the site.

Potential future sources of quench water include subdrain water or treated leachate if appropriate water quality objectives are met. Prior to commencement of use of potential future sources for quench water, ALRRF will contact the LEA to provide information on the sources.

2.12 Responsible Person(s)

Title 14, Article 3.2, Section 18227(l) of the CCR requires that a RCSI contain *"Identification of person(s) responsible for oversight of facility operations."*

Site supervision by qualified personnel ensures safe and efficient management operations, as well as compliance with applicable regulatory requirements and permit conditions. In accordance with CCR Title 14, Chapter 3, Article 6.2, Section 17410.2, adequate supervision and a sufficient number of qualified personnel will be provided in order to ensure proper operation of the facility.

Managers are directly responsible for supervising staff, defining staff functions, developing personnel plans, efficiently operating the landfill facility, and promoting compliance with operating procedures and regulatory requirements. ALRRF operations are managed by a District Manager (DM). The DM has staff/managers to oversee daily operations, maintenance, compliance, engineering, and administrative functions. In addition, a Site Operations Manager is based at ALRRF and is familiar with the daily operations and maintenance of the site and composting facility.

Name	Title	Phone Number
Marcus Netzt	District Manager	(925) 455-7323
Brian Tarte	District Operations Manager	(925) 455-7308
Sarah Fockler	Environmental Protection Specialist	(925) 455-7305

The number of employees working at the composting facility may vary dependent on the operations occurring on a specific day. It is anticipated that days when all operations are occurring, including receipt of waste, grinding, pile loading and unloading, and screening, there may be up to 4-6 full time employees at the operation. Grinding and pile building activities are anticipated to occur daily Monday through Friday, however some days one or all of these activities may not occur due to equipment maintenance, personnel availability, or actual need due to stockpile sizes. Screening activities may occur daily or more intermittent, due to need for finished product, space available, etc. An equipment operator or other employee will be present during receipt of waste and loading of finished compost materials for sale.

2.13 Site Restoration Activities

Title 14, Article 3.2, Section 18227(m) of the CCR requires that a RCSI contain "A description of the proposed site restoration activities, in accordance with Section 17870."

In accordance with CCR, Title 14, Chapter 3.1, Article 9, Section 17870 ALRRF will provide the LEA written notice of intent to perform site restoration at least 30 days prior to beginning site restoration. The operator and owner will provide site restoration necessary to protect public, healthy, safety and the environment. The operation and facility grounds, pond and drainage areas will be cleaned of residues including, but not limited to, compost materials, construction scraps, and other materials related to the operations. These residues will be legally recycled, reused or disposed. In addition, machinery will be cleaned and removed or stored securely. Any remaining structures will be cleaned of compost materials, dust particulates, or other residues related to the composting and site restoration operations.

Additionally, the composting areas are located within a landfill soil stockpile area. This area is anticipated to be partially inactive during the composting facility life, however if the composting operation closes prior to the landfill, this area will continue to be managed as a soil stockpile area until close of the landfill.

The proposed composting operation will be part of and located wholly within the boundaries of the ALRRF property. Therefore, closure of the composting facility and site restoration will be in accordance with applicable portions of the Altamont Landfill and Resource Recovery Facility Preliminary Closure and Post-Closure Maintenance Plans and/or the above cited regulations when the composting facility is closed.

2.14 Recordkeeping

Facility records will be maintained in accordance with CCR Title 14, Division 7, Chapter 3.1, Article 8, Section 17869. Records to be maintained include:

- Special occurrences encountered during operation and methods used to resolved problems arising from these events, including details of all incidents that required implementing emergency procedures;
- Complaints received by the operator;
- Quantity and type of feedstock received and quantity of compost and chipped and ground material produced;
- Number of load checks performed and loads rejected;
- Test results generated in compliance with Article 7 of Chapter 3.1 which include tests for metals, pathogens, and physical contaminants;
- Serious injury to the public occurring onsite and any compliance of adverse health effects to the public attributed to operations; and
- Training and instruction in accordance with Article 6, Section 17867.5.

Required records will be maintained onsite and accessible for five (5) years and available for inspection by authorized representatives of the LEA during normal working hours.

3 CCR TITLE 14, DIVISION 7, CHAPTER 3.1 REQUIREMENTS

3.1 Siting on Landfills

Title 14, Article 5, Section 17865(b) of the CCR requires that *"Compostable materials handling operations and facilities sited on intermediate cover on a solid waste landfill shall locate operations areas on foundation substrate that is stabilized, either by natural or mechanical compaction, to minimize differential settlement, ponding, soil liquefaction, or failure of pads or structural foundation."*

The composting facility (with the exception of finished product storage areas located in an area of Fill Area 1) is located outside the waste footprint of the ALRRF (Figure 2). The composting facility generally occupies an approximately 40.5 acre area located within the ALRRF property boundary, north of Fill Area 1, and additional 20 acres of finished compost storage as necessary on Fill Area 1. The proposed composting facility will not interfere with other landfill operations at the site and will not interfere with closure and post-closure maintenance of the landfill.

3.2 General Design Requirements

Title 14, Chapter 3.1, Article 5, Section 17866 of the CCR requires that:

- "(a) Compostable materials handling operations and facilities shall be designed and constructed in such a manner as to enable the operations and facilities to comply with the operational requirements set forth in Article 6 of this Chapter.*
- (b) The design of a compostable materials handling facility shall utilize advice, as appropriate, from persons competent in engineering architecture, landscape design, traffic engineering, air quality control, and design of structures.*
 - (1) The engineering design of a compostable materials handling facility shall be in accordance with the principles and disciplines in the State of California generally accepted for design of this type of facility. The design of a composting facility requiring a Compostable Materials Handling Facility Permit shall accompany the Report of Composting Site Information, pursuant to section 17863 of this Chapter.*
 - (2) The engineering design shall be based on appropriate data regarding the service area, anticipated nature and quantity of material to be received, climatological factors, physical settings, adjacent land use (existing and planned), types and numbers of vehicles anticipated to enter the station, drainage control, the hours of operation and other pertinent information. If the station is to be used by the general public, the design of the facility shall take account of features that may be needed to accommodate such public use."*

The proposed ALRRF composting facility and operations are being designed and will be constructed to comply with the operational requirements of the CASP process, California State Water Quality Control Board General WDRs for Composting Operations dated August 4, 2015, concurrently being assessed with the CASP designs, and to be in compliance with the requirements of the BAAQMD ATC, once issued. ALRRF utilized advice from engineering professionals who are knowledgeable in the design and operation of composting facilities. The construction drawings, including the civil, structural, mechanical and electrical components, were designed and prepared by qualified engineers who are knowledgeable in these disciplines as applied to composting facilities.

3.3 Site Restoration

Title 14, Article 9, Section 17870 of the CCR requires that *"All compostable materials handling operations and facilities shall meet the following requirements:*

- (a) *The operator shall provide the EA written notice of intent to perform site restoration, at least 30 days prior to beginning site restoration.*
- (b) *The operator(s) and owner(s) shall provide site restoration necessary to protect public health, safety, and the environment.*
- (c) *The operator shall ensure that the following site restoration procedures are performed upon completion of operations and termination of service:*
 - (1) *The operation and facility grounds, ponds, and drainage areas shall be cleaned of all residues including, but not limited to, compost materials, construction scraps, and other materials related to the operations, and these residues legally recycled, reused, or disposed of.*
 - (2) *All machinery shall be cleaned and removed or stored securely.*
 - (3) *All remaining structures shall be cleaned of compost materials, dust, particulates, or other residues related to the composting and site restoration operations."*

Please refer to Section 2.13 Site Restoration Activities, which addresses this requirement.

3.4 General Operating Standards

3.4.1 Excluded Materials

Title 14, Article 6, Section 17867(a)(1) of the CCR requires that *"All handling activities are prohibited from composting any material specified in section 17855.2 of this Chapter."*

Material specified in Title 14, Division 7, Chapter 3.1, Article 2, Section 17855.2 including unprocessed mammalian tissue, medical waste and hazardous waste will not be composted. Please refer to Sections 2.3.3.2 Salvaging and 2.3.3.5 Removal of Non-Compostable Materials of this report which also address excluded materials.

3.4.2 Human Protection

Title 14, Article 6, Section 17867(a)(2) of the CCR requires that *"All handling activities shall be conducted in a manner that minimizes odor impacts so as to not cause a nuisance."*

Title 14, Article 6, Section 17867(a)(3) of the CCR requires that *"All handling activities shall be conducted in a manner that minimizes vectors, litter, hazards, nuisances, and noise impacts; and minimizes human contact with, inhalation, ingestion, and transportation of dust, particulates, and pathogenic organisms."*

Handling activities will be conducted in a manner that minimizes these potential nuisances. Please refer to applicable portions of Section 2.4 Environmental Controls which addresses this requirement in more detail.

3.4.3 Load Checking

Title 14, Article 6, Section 17867(a)(4) of the CCR requires that *"Random load checks of feedstocks, additives, and amendments for contaminants shall be conducted."*

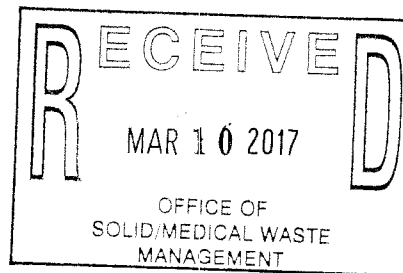
Please refer to Section 2.2.3.6 Load Checking, which addresses this requirement.

3.4.4 Contamination of Compostable Material

Title 14, Chapter 3.1, Article 6, Section 17867(a)(5) of the CCR requires that *"Contamination of compostable material that has undergone pathogen reduction, pursuant to section 17868.3 of this Chapter, with feedstocks, compost, or wastes that have not undergone pathogen reduction, pursuant to section 17868.3 of this Chapter, or additives shall be prevented."*

To avoid contamination of compost that has undergone pathogen reduction, the composting facility has been designed to maintain separation of compostable materials in their different phases of composting. Distinct and separate operational areas have been designated as shown on Figures 2 and 3 for receiving feedstocks, grinding, placement in active composting CASP piles, and curing and screening. The facility is large enough to manage and process 500 tpd of compostable materials and maintain adequate separation and control of the composting process through its several phases. All liquids including quench water, water to moisture condition CASP covers and windrow turning of curing piles, and rainfall is managed to avoid cross contamination.

In accordance with applicable regulations, testing of the finished compost product ensures that pathogenic contamination is prevented. Per Title 14, Chapter 3.1, Article 7, Sections 17868.1, 17868.2, 17868.3 there are testing requirements for composite analysis and testing for metals and pathogen reduction, including temperature readings and fecal coliform. ALRRF will conduct verification sampling for pathogen reduction and metal concentrations per Sections 17868.1, 17868.2 and 17868.3. Per Article 7, Section 17868.1, one representative and random composite sample will be collected per 5,000-cubic yards of compost produced



and sent to a state certified laboratory for analysis. Compost will be analyzed for maximum acceptable concentrations of metals including arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium and zinc. Maximum acceptable pathogen concentrations will be confirmed through analysis for density of fecal coliform and density of Salmonella sp. Bacteria.

Per Title 14, Chapter 3.1, Article 7, Sections 17868.3.1 there are testing requirements for physical contamination. Compost is not to contain more than 0.5% by dry weight of physical contaminants greater than 4 millimeters. No more than 20% by dry weight of this 0.5% is to be film plastic greater than 4 millimeters. ALRRF will conduct sampling in accordance with Section 17868.3.1 when it becomes operative as of January 1, 2018.

Test results of samples must be received by the operator prior to removing compost from the composting operation or facility where it was produced. If materials do not meet the pathogen reduction, metal concentration, and/or physical contaminant requirements stated above, the compost material shall be designated for additional processing, disposal, or other use as approved by the LEA.

Frequent visual inspections of the finished product will be made to ensure that compost is not contaminated by windblown material. If contamination is observed, increased litter picking, portable fencing, or other barriers will be used to prevent contamination. Please refer to Sections 2.2.3.5 and 2.2.3.6 for greater detail.

3.4.5 Unauthorized Access to the Facility

Title 14, Article 6, Section 17867(a)(6) of the CCR requires that *"Unauthorized human or animal access to the facility shall be prevented."*

All traffic enters ALRRF through the Main Gate off Altamont Pass Road. The Main Gate is controlled by locking gates, a Guard House, and video surveillance. The entrance road is a two-lane asphalt- concrete paved surface, one lane for traffic entering the site and one lane for traffic exiting.

3.4.6 Traffic Control

Title 14, Article 6, Section 17867(a)(7) of the CCR requires that *"Traffic flow into, on, and out of the composting operation or facility shall be controlled in a safe manner."*

Please refer to Section 2.4.9 Traffic Control, which addresses this requirement.

3.4.7 Required Signage at the Facility

Title 14, Article 6, Section 17867(a)(8) of the CCR requires that *"All compostable materials handling operations and facilities, that are open for public business, shall post legible signs at all public entrances. These signs shall include the following information:*

- (A) *Name of the operation or facility,*
- (B) *Name of the operator,*
- (C) *Facility hours of operation,*
- (D) *Materials that will and will not be accepted, if applicable,*
- (E) *Schedule of charges, if applicable, and*
- (F) *Phone number where operator or designee can be reached in case of an emergency."*

Legible signs, either added to or separate from the landfill signs as appropriate, containing the required information above will be posted at the public entrance and at the scale house.

3.4.8 Fire Protection and Control Measures

Title 14, Article 6, Section 17867(a)(9) of the CCR requires that *"The operator shall provide fire prevention, protection and control measures, including, but not limited to, temperature monitoring of windrows and piles, adequate water supply for fire suppression, and the isolation of potential ignition sources from combustible materials. Fire lanes shall be provided to allow fire control equipment access to all operation areas."*

ALRRF composting operations will implement the Fire Prevention, Control and Mitigation Plan included as Appendix C.

3.4.9 Emergency Communication Capability

Title 14, Article 6, Section 17867(a)(10) of the CCR requires that *"The operator shall provide telephone or radio communication capability for emergency purposes."*

Emergency communication capability includes the use of radio equipment and cellular phones. Emergency communications and procedures are addressed in the site's Emergency Management and Contingency Plan.

3.4.10 Removal of Physical Contamination in Feedstock from the Site

Title 14, Article 6, Section 17867(a)(11) of the CCR requires that *"Physical Contaminants and refuse removed from feedstock, compost, or chipped and ground material shall be removed from the site within 7 days and transported to an appropriate facility."*

Physical contaminants and refuse are removed from the composting facility within 7 days and disposed in the landfill.

3.4.11 Ventilation of Enclosed Operations

Title 14, Article 6, Section 17867(a)(12) of the CCR requires that *"Enclosed operations and facilities shall provide ventilation to prevent adverse public health effects from decomposition gases."*

The composting facility is not an enclosed facility, and, therefore ventilation is not applicable.

3.4.12 Control of Leachate

Title 14, Article 6, Section 17867(a)(13) of the CCR requires that *"The operator shall ensure that leachate is controlled to prevent contact with the public."*

Please refer to Section 2.4.1, Compost Contact Water, Stormwater, and Air Pollution and Appendix A, which addresses control of wastewater.

3.4.13 Removal of Physical Contaminants that May Cause Injury

Title 14, Article 6, Section 17867(a)(14) of the CCR requires that *"The operator shall prevent or remove physical contaminants in compost and chipped and ground materials that may cause injury to humans."*

The load check program at ALRRF minimizes unsuitable material delivered to the composting area. The processing operator(s) at the composting area are trained and directed to re-inspect the feedstock prior to grinding to identify and remove physical contaminants that could cause injury or damage to composting equipment.

3.4.14 Supervision if Facility is Open to the Public

Title 14, Article 6, Section 17867(a)(15) of the CCR requires that *"An attendant shall be on duty during business hours if the operation or facility is open to the public."*

When compostable materials are logged in at the scale house, the public is directed to a designated area at the composting facility for unloading feedstock. The composting facility is supervised by a trained operator who directs activities in the receiving area when public may be present. Please also refer to related Section 2.2.1 Composting Facility Access, and Section 2.2.2 Hours of Operation.

3.5 Training

Title 14, Article 6, Section 17867.5(a)(1) of the CCR requires that *"Operators shall ensure that all personnel assigned to the operation shall be trained in subjects pertinent to operations and*

maintenance, including the requirements of this article, physical contaminants and hazardous materials recognition and screening, with emphasis on odor impact management and emergency procedures. A record of such training shall be maintained on the site."

All employees assigned to the composting facility will be trained in the compost process, site operations, equipment usage, and safety procedures. Onsite training will include training on physical contaminants and hazardous materials recognition and screening, odor impact management, and emergency procedures and general site safety. Standard operating procedures (SOPs) will be reviewed during training and summary documents for the SOPs will be maintained onsite.

Training records will be maintained at the site as required.

LIMITATIONS

This RCSI has been prepared for the exclusive use of ALRRF for specific application to the projected construction and operation of a composting facility at the Site. The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, expressed or implied, is made. These services were performed consistent with our agreement with our client. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others or the use of segregated portions of this report.

REFERENCES

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CCR. Title 14, Natural Resources, Division 7, Chapter 3.1 Compostable Materials Handling Operations and Facilities Regulatory Requirements, Article 2 Regulatory Tiers for Composting Operations and Facilities.

CCR. Title 14, Natural Resources, Division 7, Chapter 3.1 Compostable Materials Handling Operations and Facilities Regulatory Requirements, Article 3 Report of Facility Information.

CCR. Title 14, Natural Resources, Division 7, Chapter 3.1 Compostable Materials Handling Operations and Facilities Regulatory Requirements, Article 5 Composting Operation and Facility Siting and Design Standards.

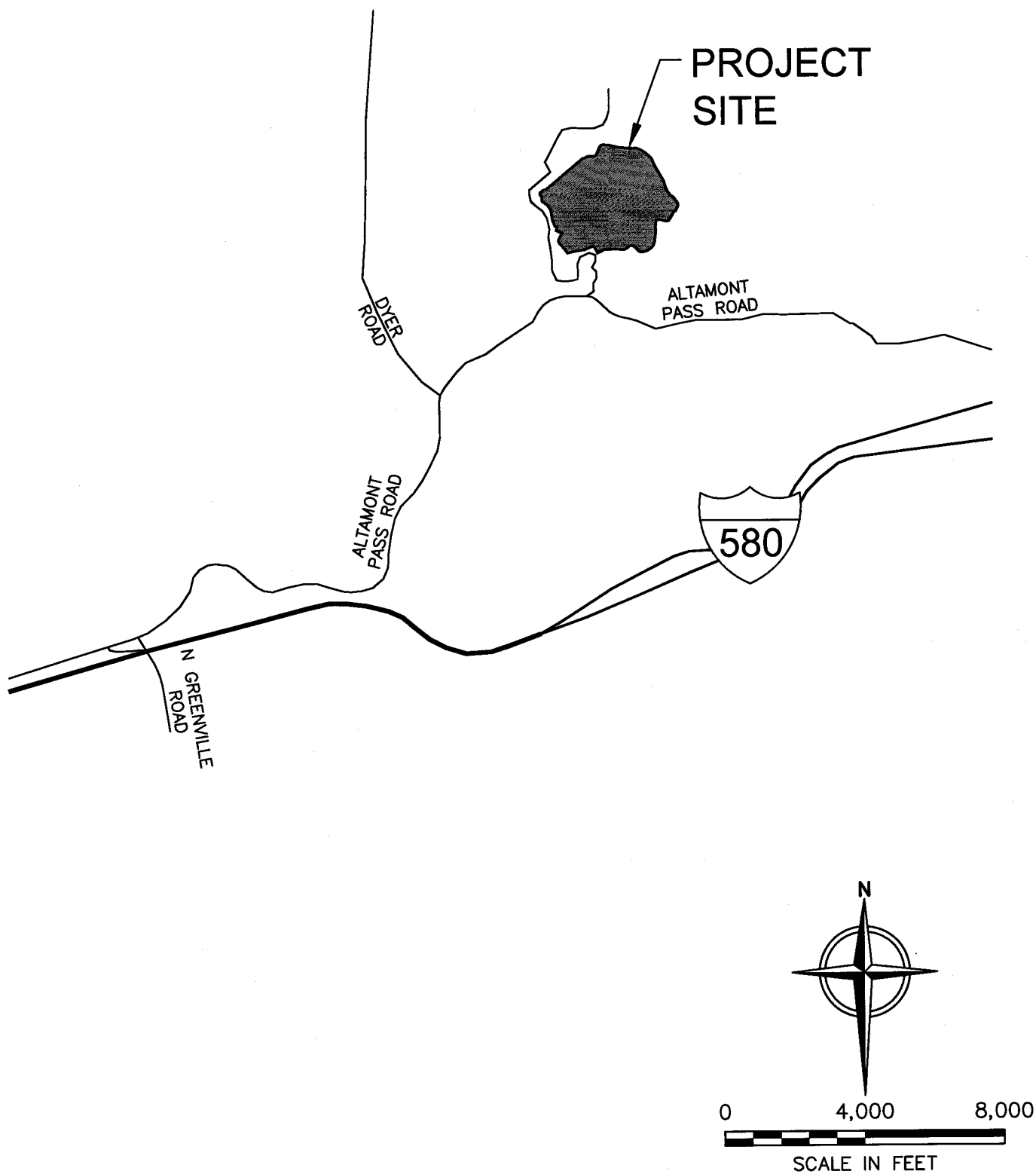
CCR. Title 14, Natural Resources, Division 7, Chapter 5. Enforcement of Solid Waste Standards and Administration of Solid Waste Facility Permits, Article 3.2, Subchapter 18227 Report of Composting Site Information.

US Composting Council, 2009. Best Management Practices for Incorporating Food Residuals into Existing Yard Waste Composting Operations. 2009

Waste Management, 2013. Emergency Management and Contingency Plan for Altamont Landfill and Resource Recovery Facility. December.

California State Water Resources Control Board, 2015. Order WQ2015-0121-DWQ General Waste Discharge Requirements for Composting Operations. August 4.

Figures



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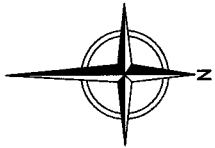
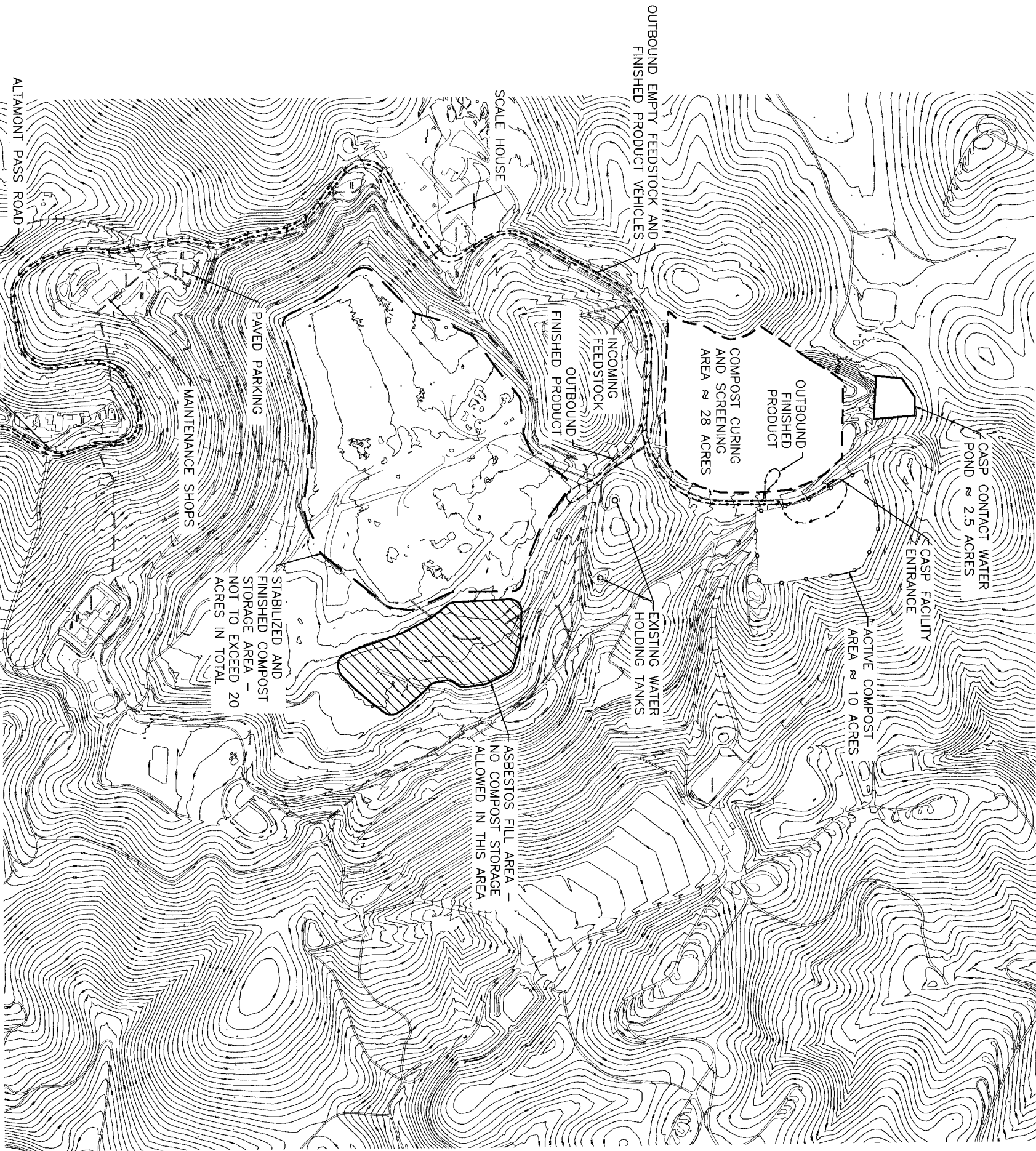
ALTAMONT LANDFILL
REPORT OF COMPOSTING INFORMATION

SITE LOCATION MAP

FIGURE

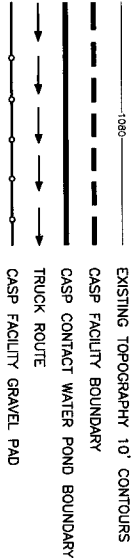
1

PROJECT NO.
140515



0 400 800
SCALE IN FEET

LEGEND



NOTES:
1. TOPOGRAPHIC CONTOURS PREPARED USING PHOTOGRAMMETRIC METHODS BY MILLER CREEK AERIAL MAPPING INC. DATE OF PHOTOGRAPHY: DECEMBER 31, 2015. DATUM: HORIZONTAL - NAD 83; VERTICAL - NAD 88.

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY	DESIGNED BY
12/19/16			RAW	MED	PJS

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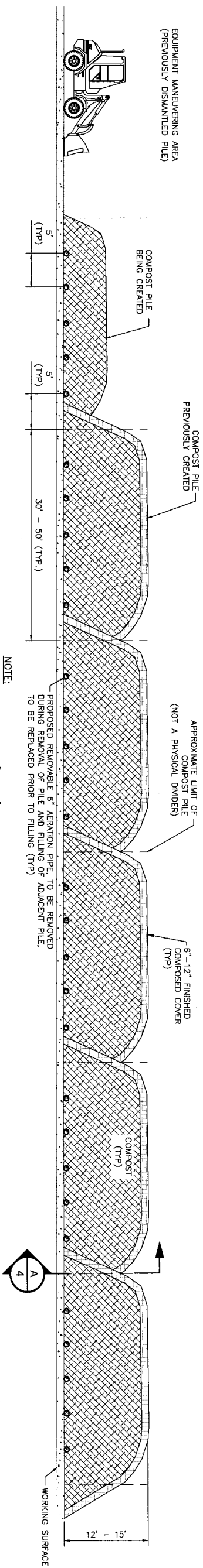
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DATE OF ISSUE: 12/19/16

ALTAMONT LANDFILL
REPORT OF COMPOSTING SITE INFORMATION

TYPICAL SITE AND TRAFFIC PLAN

FIGURE 2
PROJECT NO. 140515

CONCEPTUAL - NOT FOR CONSTRUCTION

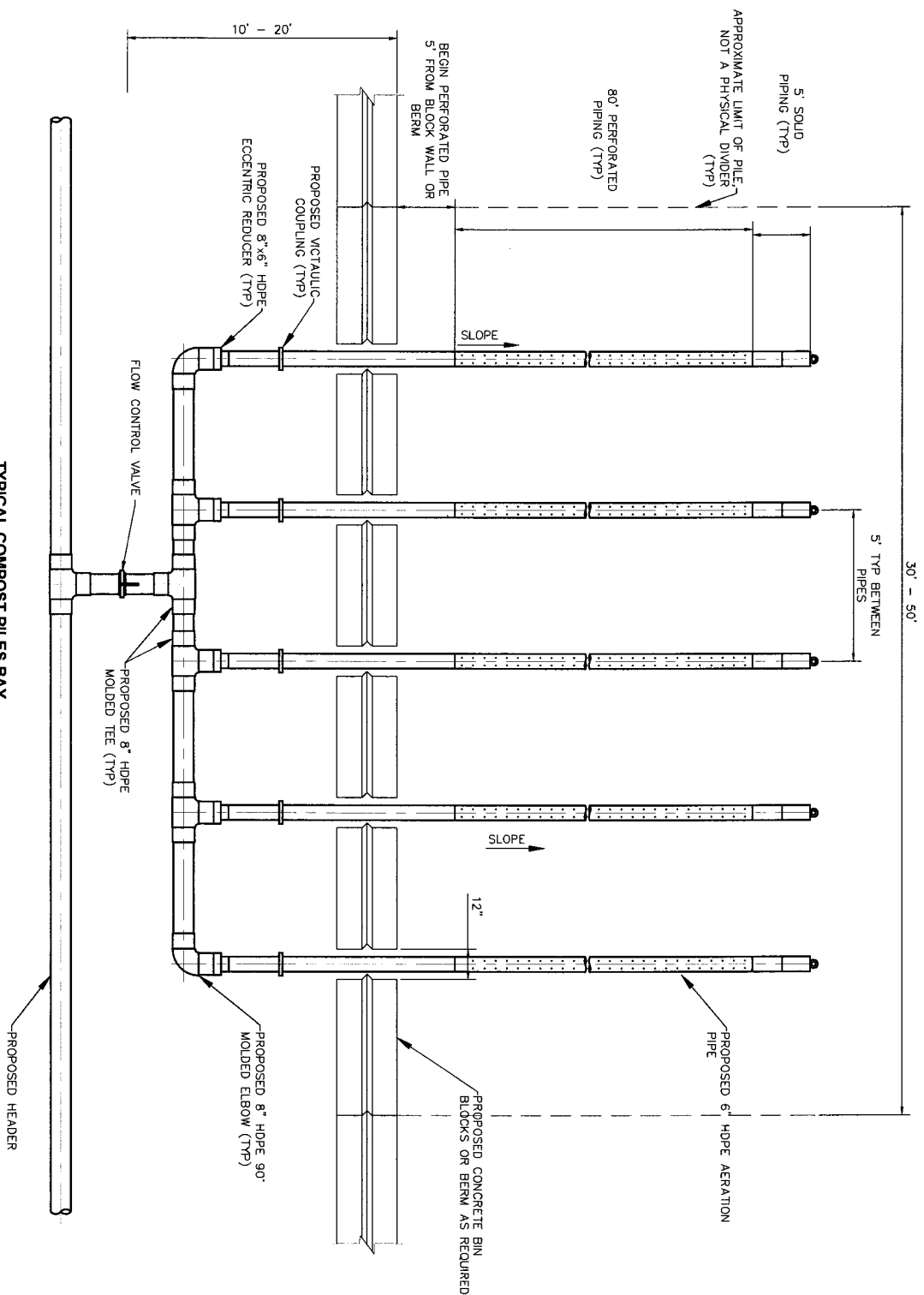


NOTE:
1. LAYOUT OF PIPES IS "TYPICAL" AND SUBJECT TO DESIGN

TYPICAL COMPOST PILES

SECTION

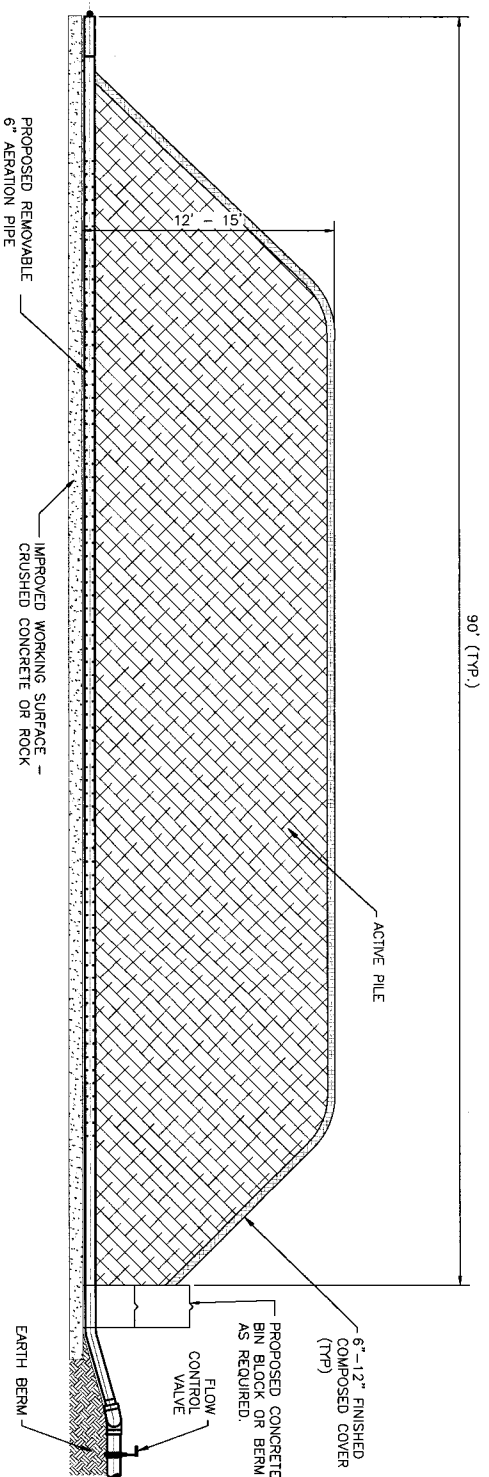
SCALE: NOT TO SCALE 4



TYPICAL COMPOST PILES BAY

PLAN

SCALE: NOT TO SCALE



COMPOST PILES

SECTION

SCALE: NOT TO SCALE 4

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4

CONCEPTUAL - NOT FOR CONSTRUCTION

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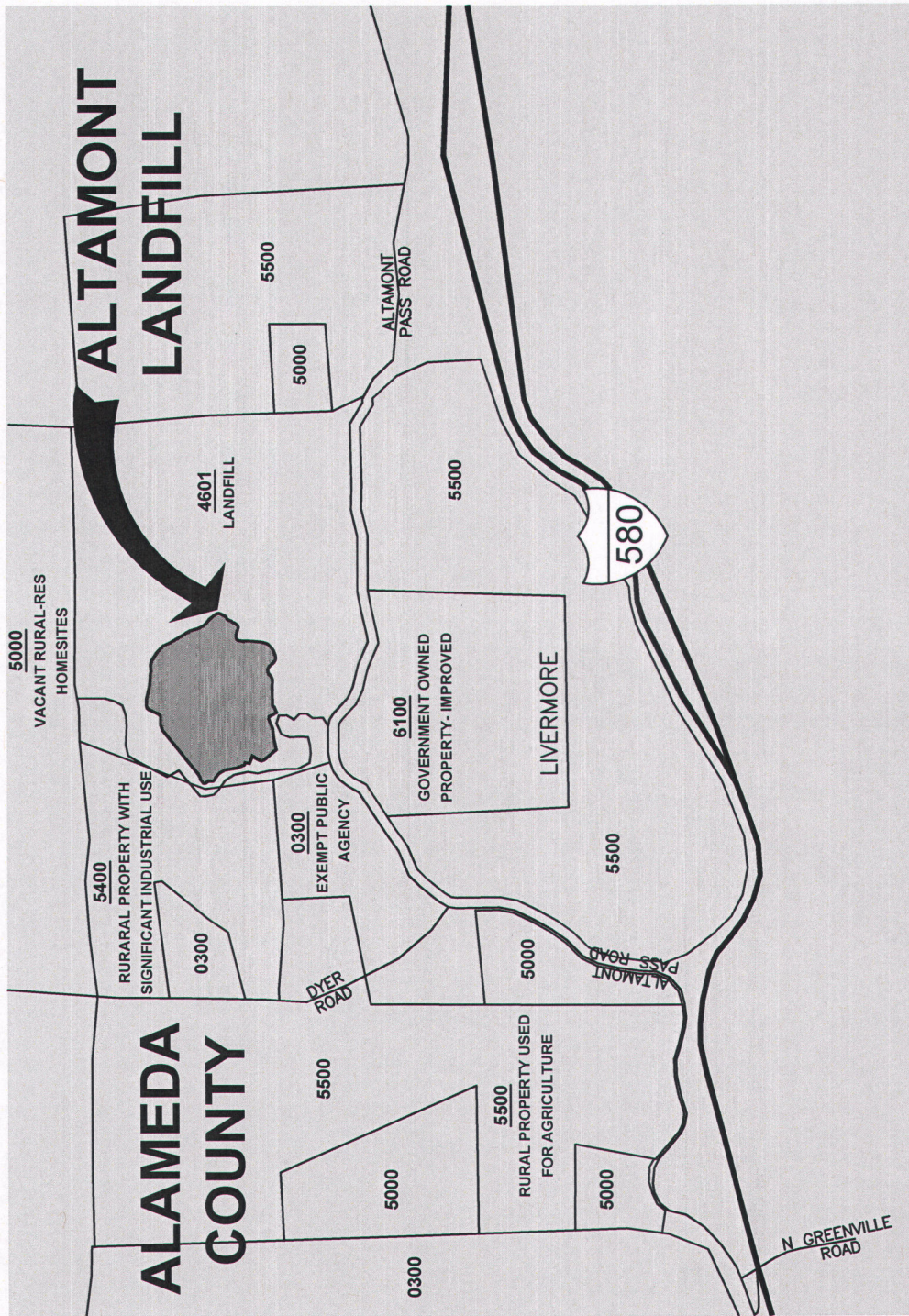
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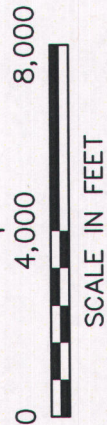
ALTAMONT LANDFILL
REPORT OF COMPOSTING SITE INFORMATION
TYPICAL COMPOSTING PILE AERATION DETAIL

FIGURE
4
PROJECT NO.
140515



SOURCES:

1. ALAMEDA COUNTY OFFICE OF ASSESSOR : PARCEL VIEWER, ACCESSED OCTOBER 30, 2014



ALTAMONT LANDFILL
REPORT OF COMPOSTING INFORMATION
LAND USE MAP

FIGURE
5
PROJECT NO.
140515

Prepared: March 8, 2016

Client: Waste Management Inc.

Project Name: ALRRF CASP

Project Number: 140515

Site Name: Altamont Landfill

Site Location: Livermore, CA

COVERED AERATED STATIC PILE COMPOST PROCESS

Photograph No.: 001

Materials receiving.



Photograph No.: 002

Grinding of green waste.



Prepared: March 8, 2016

Client: Waste Management Inc.

Project Name: ALRRF CASP

Project Number: 140515

Site Name: Altamont Landfill

Site Location: Livermore, CA

Photograph No.: 003

**Moisture conditioning of
ground green waste.**



Photograph No.: 004

**Mixing of green waste with
front loader.**



Prepared: March 8, 2016

Client: Waste Management Inc.

Project Name: ALRRF CASP

Project Number: 140515

Site Name: Altamont Landfill

Site Location: Livermore, CA

Photograph No.: 005

Lay out of HDPE aeration
pipes.



Photograph No.: 006

Optional plenum layer.



Prepared: March 8, 2016

Client: Waste Management Inc.

Project Name: ALRRF CASP

Project Number: 140515

Site Name: Altamont Landfill

Site Location: Livermore, CA

Photograph No.: 007

Building of the pile with front loader.



Photograph No.: 008

Placing finished compost as biofilter on outside of pile.



Prepared: March 8, 2016

Client: Waste Management Inc.

Project Name: ALRRF CASP

Project Number: 140515

Site Name: Altamont Landfill

Site Location: Livermore, CA

Photograph No.: 009

Completed pile with
temperature monitoring
probe.



Photograph No.: 010

Main header air distribution
system with valves and flow
meters for air control.



Prepared: March 8, 2016

Client: Waste Management Inc.
Project Name: ALRRF CASP
Project Number: 140515
Site Name: Altamont Landfill
Site Location: Livermore, CA

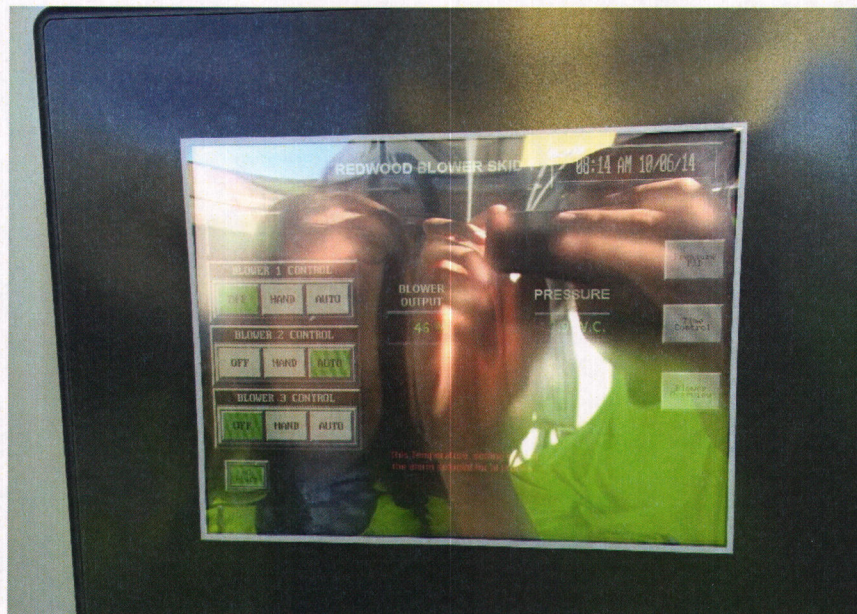
Photograph No.: 011

Blower skid with blowers
for aeration piles.



Photograph No.: 012

Control panel for operation
of blowers and data
collection of temperature
monitoring probes.



Prepared: March 8, 2016

Client: Waste Management Inc.

Project Name: ALRRF CASP

Project Number: 140515

Site Name: Altamont Landfill

Site Location: Livermore, CA

Photograph No.: 013

Deconstruction of pile.



Photograph No.: 014

Piles in curing.



Prepared: March 8, 2016

Client: Waste Management Inc.

Project Name: ALRRF CASP

Project Number: 140515

Site Name: Altamont Landfill

Site Location: Livermore, CA

Photograph No.: 015

Finished product.

