APPENDIX B – OPERATIONS PLAN AND ODOR IMPACT MINIMIZATION PLAN

CUP APPLICATION/CEQA PROCESS INFORMATION

Proposed

Operations Plan
and

Odor Impact Minimization Plan

for the

Mt. Diablo Resource Recovery Park
Organic Processing Facility
1300 Loveridge Road
Pittsburg, CA 94565

Prepared for

Contra Costa Waste Services
1300 Loveridge Road
Pittsburg, CA 94565

Prepared by:

Edgar & Associates

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Regulatory Authority:

California Code of Regulations (14CCR) Title 14, Section 17863.4 (effective on April 4, 2003) requires an Odor Impact Minimization Plan (OIMP) for all compostable material handling operations and facilities. The following Operations Plan and OIMP is being submitted for the purpose of informing the local planning process as to the nature of the proposed Mt. Diablo Resource Recovery Park Organic Processing Facility and potential impacts and mitigations to be assessed, as required under the California Environmental Quality Act (CEQA).

Following the planning process, an OIMP for the proposed operations will be submitted to the Local Enforcement Agency as part of the Solid Waste Facility Permit process for a compostable materials handling operation, where up to 10,000 cubic yards of green material and food waste is proposed to be stored and processed.

Facility Name:	Mt. Diablo Resource Recovery Park Organic Processing Facility
Facility Location:	1300 Loveridge Road Pittsburg, CA 94565
Mailing Address:	4080 Mallard Drive Concord, CA 94520
Land Owner:	Contra Costa Waste Service 4080 Mallard Drive Concord, CA 94520
Operator:	Contra Costa Waste Service 4080 Mallard Drive Concord, CA 94520

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Current Entitlements:

Contra Costa Waste Service (CCWS) has been operating a solid waste transfer and recyclables materials processing operation – accepting a limited amount of

construction and demolition/inert debris since 2002 – at 1300 Loveridge Road in Pittsburg since 1996.

CCWS obtained land use entitlements from the City of Pittsburg on March 6, 1995 with a Use Permit to establish a Material Recovery Facility and Transfer Station on 17.5 acres in an IG (General Industrial) zone to handle and process up to 1,500 tons per day (TPD) of solid waste and recyclable materials. The facility is located on land owned by Garaventa Enterprises.

ON December 13, 1995, the California Integrated Waste Management Board (CIWMB) concurred with the issuance of a Full Solid Waste Facilities Permit (SWFP) for a Material Recovery Facility and Transfer Station up to 1,500 TPD of incoming materials.

In July 2002, the City of Pittsburg Solid Waste management Division approved an amendment to the Report of Station Information (RSI) which included the addition of C&D processing and chipping and grinding on-site operations.

The following sections provide specific information on compliance with the provisions of Title 14, California Code of Regulations, Section 17863.4 (b) (1) through (5).

Site Operations:

Current Operations:
Green materials and wood waste are delivered to the site from collection vehicles. A peak of 200 tons per day of material may be received during the peak season on an all weather operational pad, is regulated under the Enforcement Agency Notification tier, and is not part of the Solid Waste Facility Permit activity.

The green material is stockpiled on a pad for a maximum period of 7 days. Chipping and grinding generally occurs within 48 hours. The green material storage pad is constructed with compacted gravel and sloped to drain. The compacted gravel pad has year round access where transfer trailers can be loaded out in a timely manner. The green material is loaded from the stockpile into transfer trailers where the material is transported to a permitted facility for composting, or at last resort, alternative daily cover at a landfill.

The wood waste is stockpiled on a compacted gravel pad for a maximum period of 15 days. Chipping and grinding generally occurs daily. The wood chips are loaded from the stockpile into transfer trailers where the material is transported to biomass energy facilities.

Proposed Operations:

The proposed operations would include the following activity as provided in Table 14 below and shown on Site Plan Sheets A1.2 and A6 in Appendix A, with an Operations Plan and Odor Impact Minimization Plan provided in Appendix B:

- Increase the tonnage from 200 TPD to 800 TPD with up to 10,000 cubic yard of storage
- Increase the operating hours from 7 a.m to 5 p.m. to 24 hours per day
- Allow the processing of co-collected green material and food material from residential sources
- Defined operational area as the "Organic Processing Facility"
- Include the Organic Processing Facility in the Solid Waste Facility Permit

The co-collection of green waste with food material from residential sources (co-collected residential organics) is an emerging trend in California to meet CalRecycle's Strategic Directive No. 6 to divert 50% of the organic materials from landfilling by 2020, and for AB 32 Scoping Plan, to increase compost use. The amount of residential food material varies from 5% to 10% of the green waste volume, based upon seasonal factors and special holiday events. Food material is defined in state regulations (Title 14 copied below), to include residential food scrap collection. Commercial food waste would not be part of this program, and would be processed indoor at the Transfer/Processing Facility.

> **"Food *material*"[14CCR §17852(a)(20)]--means any material that was acquired for animal or human consumption, is separated from the municipal solid waste stream, and that does not meet the definition of "agricultural material." Food material may include material from food facilities as defined in Health and Safety Code section 113785, grocery stores, institutional cafeterias (such as, prisons, schools and hospitals) or residential food scrap collection.**

The co-collected residential organics would be delivered to the site from collection vehicles. A peak of 400 tons per day of material may be received during the peak season on the all weather operational pad or would be delivered indoors inside of the Transfer/Processing Facility and mixed with food waste in the proposed bunker. The Organic Processing Facility operational area would be brought back into the Solid Waste Facility Permit since the amount of putrescible material will exceed 1%, and no longer qualify as green material that could be permitted under an EA Notification Tier, as with current operations. A site specific Odor Impact Minimization Plan is included in Appendix B with plans to limit the outdoor storage time to 48 hours, and only allow co-collected food material from residential sources, with no commercial food waste outdoors. Table 1 below outlines the parameters of the proposed operations of the Organic Processing Facility.

Table 1
Proposed Operations of the Organic Processing Facility

Operations	Hours of Operations	Processing Rate	Justification	Design Tons	Proposed Project
Outdoor Organic Processing Facility	24 hours per day	Two grinders at 80 tons per hour, or 160 tons per hour combined	400 TPD of wood and green waste 400 TPD of co-collected green material and food material	1,280 TPD	800 TPD

The Organic Processing Facility can store up to 10,000 cubic yards of organic material in four stockpiles that are 80 feet wide, 80 feet long, with an average height of 15 feet, and a peak height of 20 feet. The stockpiles will be separated by 15 foot fire lane with a perimeter 15 foot fire lane. One stockpile is for the storage of incoming co-collected residential organics, and the second stockpile is for the processed residential organics. The third stockpile is for the storage of wood wastes, and the fourth stockpile is for the processed wood chips. Site Plan Sheet A6 provides a typical layout showing 4 stockpiles of 2,500 cubic yards each. The specific stockpile location and grinding area will need to vary over time to receive and process the materials, but will follow these design guidelines.

The co-collected residential organics are stockpiled on a pad for a maximum period of 48 hours. Chipping and grinding generally occurs on the day of receipt. The processed co-collected residential organics material storage pad will be constructed with compacted gravel and sloped to drain. The pad has year round access where transfer trailers can be loaded out in a timely manner. The processed material is loaded from the stockpile into transfer trailers where the material is transported to a permitted facility for composting, or be used as feedstock at an anaerobic digestion facility.

Wood waste is delivered to the site from collection vehicles or recovered from the mixed C&D Processing Facility. A peak of 400 tons per day of wood waste may be received during the peak season on an all weather operational pad, and will be part of the Solid Waste Facility Permit activity. For purposes of design and operations capacity, the wood waste from the mixed C&D Processing Facility is factored into the calculations. For the purposes of the Solid Waste Facility Permit, the tonnage of the wood waste within the mixed C&D waste has been assigned to the mixed C&D Processing Facility.

The wood waste is stockpiled on a pad for a maximum period of 15 days. Chipping and grinding generally occurs daily. The storage pad is constructed with compacted gravel and sloped to drain. The wood chips are loaded from the stockpile into transfer trailers where the material is transported to biomass energy facilities.

Table 2

Typical Acceptable Items for Co-Collected Organics Programs

Yes	No
All Residentially-Generated Commingled Food Waste Products with Green Material including: • Fruit, vegetable, breads, cereal, dairy • Meat, fish (including bones) • Leftovers & table scraps • Coffee Grounds, filters & tea bags • Coffee Grounds, filters & tea bags • Food-Soiled Paper • Paper towels, plates & napkins • Pizza boxes	**Inert materials and plastic products including:** • Plastic (bags, containers, Styrofoam etc) • Glass • Metal • Liquids

The following sections provide specific information on compliance with the provisions of Title 14, California Code of Regulations, Section 17863.4 (b) (1) through (5).

Section 17863.4 (b) (1) - Odor Monitoring Protocol

Management of raw feedstock piles, organic stockpiles, and processed green material may cause odors. The operator and the community must be willing to work together to monitor, evaluate, and allow time to make changes should nuisance odors be emitted and an odor complaint be received. The best way to ensure that all parties work together is to implement an odor impact minimization plan that is agreed upon between the operator and the LEA.

The closest receptors will be operations staff and management who will be onsite during operating hours to monitor the compostable materials handling operation. The operation is sited in an industrial section of Pittsburg away from many sensitive receptors. The California Integrated Waste Management Board has identified 1,000 feet as the distance required for identification of receptors.

Possible receptors are: 1) the GWF Power Plant on the parcel adjacent to the south; 2) Antioch Building Materials operation of a sand and gravel processing facility to the south; 3) Dow Chemicals and US Steel/POSCO industrial facilities to the north; and 4) a public auto auction and two smaller recycling operations to the west. The closest residential subdivision is approximately one-half mile west of the site to the south side of E. 14th Street.

Our analysis of prevailing wind conditions for the site indicates wind is predominantly from the west, which would limit impact to downwind residences, which are over 1 ½ miles east-southeast of the facility, beyond the Delta Diablo Sanitation District wastewater treatment plant.

Each day the Operator will evaluate onsite odors and evaluate planned operations for the potential to release objectionable odors. If the operator detects an objectionable onsite odor, he will take the following actions:

1. Investigate and determine the likely source of the odor.

2. Determine if onsite management practices could remedy the problem and immediately take steps to remedy the situation.

3. Determine whether or not the odor is traveling beyond the site by patrolling the site perimeter and noting existing wind patterns.

4. Determine whether or not the odor event is significant enough to warrant contacting the adjacent neighbors or the LEA.

In the event of significant odors where a complaint has been filed, the protocol is for the Operator and/or the LEA to inspect the location of a received complaint. The Operator and/or LEA shall attempt to determine if an offensive odor exists. In the event that the complaint cannot be verified in this manner, the Operator will continue to perform self-monitoring and continue the best management practices (BMPs) described in his operating document. In the event an offensive odor is detected, the Operator and LEA shall discuss additional or enhanced BMPs to minimize the likelihood of future odor detection.

The principal mitigation measure for the facility would be to load out any odoriferous material to a landfill for disposal; to this end, the operator will continue to implement a thorough load check program. The operator will reduce the holding time from seven days at certain times of the year where there are a high percentage of grass clippings or wet leaves to a time period which will effectively minimize odors.

Section 17863.4 (b) (2) - **Meteorological Data**

Climatic conditions in Pittsburg are not expected to significantly affect the chipping and grinding operation. Contra Costa County's climate has been characterized as Mediterranean with moderate temperatures. These temperatures range from a monthly average low of 37.1 degrees Fahrenheit in January to a monthly average high of 91.1 degrees Fahrenheit in July, reported by the Western Regional Climate Center for the period of March 1, 1955 to December 31, 2005 at the Antioch Pump Plant 3 Station, latitude N37 59' at elevation 60 feet mean sea level (MSL), located approximately 7 miles from the site. Rainfall is seasonal; approximately 94 percent of the precipitation occurs from October through April. Snowfall is unusual at the site.

The prevailing wind direction is from the west and southwest towards the Sacramento/San Joaquin River Delta and away from populated areas.

The potential for odors exists when transferring piles that may have been on site for the maximum time period of 7 days. If necessary, transferring of green material will be altered during brief periods of higher winds towards any potential receptor.

Section 17863.4 (b) (3) - **Complaint Response Protocol**

Complaints may be received by either the Operator or the LEA.

- Should the LEA receive a complaint, they will notify the Operator within 24 hours and file the complaint on the attached form.
- The Operator receives and reviews the complaint.
- The LEA and/or the Operator will go to the location of the complaint to verify that the site is responsible for the odor.
- The Operator documents complaints in the site operations log.
- The Operator assesses the complaint and makes recommendations to the LEA within 24 hours of receiving the complaint or 48 hours should the citizen complaint be received on a weekend or holiday.
- The Operator implements reasonable recommendations suggested by LEA. As long as the Operator continues to implement reasonable recommendations and proceeds in good faith to improve the operations to a level that meets the recommended changes and design goals, the Operator will continue operations utilizing best management practices.
- The Operator, LEA, and complainant (if known and choosing to participate) meet within a reasonable time frame to assess the original problem and results from implementing the recommendations.
- Results and actions must be documented in the site operations log, which serves as the operation's permanent record.

Section 17863.4 (b) (4) - **Design Considerations and Procedures to Minimize Odors.**

Facility Siting**:** The siting of the organic material processing operations in an industrial location in Pittsburg, away from many sensitive receptors, provides preferred siting criteria to reduce the potential for odor complaints.

Proper Drainage**:** Standing water is a potential source of odors. The pad is paved asphalt-concrete and is sloped to drain at a minimum of 1%. The pad is maintained to prevent ponding.

On-site drainage is controlled by use of drainage ditches surrounding the perimeter of the facility and directing all surface water flow toward the storm water retention basin adjacent to the compost pad, which is maintained to prevent sedimentation and organic loading that could potentially cause odors.

Feedstock characteristics: Feedstocks are managed to minimize odors utilizing the following procedures during the processing operations:

- Load Check Program
  The workers at the facility are trained to screen incoming vehicles for presence of unacceptable wastes. All loads will be checked prior to loading the material into the processing equipment. Unacceptable material that does not pose an immediate threat to public health and safety and the environment will be collected at the facility and segregated, handled, and disposed of by trained personnel in accordance with applicable law and regulation. Debris boxes shall be maintained at all times for placement of unacceptable materials. These debris boxes shall be removed for legal offsite disposal at a permitted landfill and replaced within 7 days of initial placement.

  The facility personnel training programs will include instruction in methods to observe incoming loads and to check for the receipt of unacceptable materials. The key employees include the scale personnel, composting facility load check personnel, equipment operators, and the site manager.

- storage limitation to no more than 7 days for green waste and 48 hours for co-collected green/food waste materials.

If at any point during the processing operations verifiable odor problems occur, identified source materials will be removed and transported to a permitted landfill for disposal or use as alternative daily cover.

Equipment reliability: On-site equipment is well-maintained and reliable. Minor equipment breakdowns will be managed by company mechanics and typically is corrected within 24 hours. CCWS maintains an equipment maintenance shop at the facility. Mechanics in the equipment shop will be utilized for equipment repair and maintenance. In the event of severe mechanical failure, similar processing equipment can be rented from nearby vendors. The facility maintains good relationships with nearby equipment vendors who can provide back up and temporary equipment on very short notice.

Personnel training: Personnel assigned to the operation or facility will be adequately trained in subjects pertinent to site compostable materials handling operations and maintenance, physical contaminants and hazardous materials recognition and screening, use of mechanized equipment, environmental controls, and emergency procedures.

Personnel will be trained in the proper use of facility equipment. Potential hazards and safety features will be stressed. No employee will be permitted to operate equipment until the employee has demonstrated that he or she is competent to operate that equipment. Annual review and training ensuring continued safe operations of the facility and compliance with regulations will be conducted.

Utility service interruptions:

- Electric and Gas: critical on-site equipment is diesel-powered and not subject to local power failures.
- Water: with their connection to municipal water lines, the facility is sufficient in its water needs.
- Telephone: the office staff and the key employees on site utilize cellular telephones and/or radios to communicate and coordinate their daily and routine operating practices.

Section 17863.4 (b) (5) - Operational Considerations and Procedures to Minimize Odors.

Odor Control: The organics processing industry has proven that with proper management techniques and use of appropriate tools, offensive and nuisance odors can be controlled. Odor emissions from the green material and co-collected food waste feedstock will be minimized through proper management of the storage piles in terms of time and temperature. The consistent monitoring of the stockpiles will minimize potential decomposition and creation of odors and assure materials do not exceed 122°F.

Drainage issues**:** Standing water is a potential source of odors. The pad will be constructed of asphalt concrete or concrete and is sloped to drain at a minimum of 1%. Differential settlement of the pad and storage areas will be minimized through regrading of surfaces as needed. The pad will be maintained to prevent ponding.

On-site drainage is controlled by use of drainage ditches surrounding the perimeter of the facility and directing all surface water flow toward the storm water retention basin adjacent to the operations pad, which is maintained to prevent sedimentation and organic loading that could potentially cause odors.

Operations Procedures: The maximum storage time is 7 days for incoming green materials feedstock and 48 hours for incoming co-collected green/food waste. Should complaints be filed and verified, the storage time could be reduced at certain times of the year when there is a higher percentage of grass trimmings or wet leaves. The processing operation could be curtailed when high winds could transport odors towards sensitive receptors.

Contingency plans for minimizing odor:

- Equipment - In the event of breakdown, the operator will continue operations with replacement of affected equipment by:
    - renting from reputable, local equipment rental companies and/or
    - purchase of new equipment.

- Water: with their connection to municipal water lines, the facility is sufficient in its water needs.

- Power - Critical on-site equipment is diesel-powered and not subject to local power failures. Site personnel carry mobile telephones for communication.

As a last resort, materials determined to be the source of excessive odors will be removed and transported to a landfill for disposal or use as alternative daily cover.

Section 17863.4 (d) – Annual Review of OIMP

The OIMP will be reviewed annually by the operator, and revised as necessary.

A copy of this OIMP will be kept at the facility's administrative office. The OIMP will be revised within 30 days to reflect significant changes to operations that affect the OIMP, with a copy provided to the LEA, when appropriate.