Contra Costa Waste Service, Inc., submitted a Conditional Use Permit Application Package to the City of Pittsburg (Pittsburg; City) to expand the capacity, operations, and land area of its existing solid waste and recycling facility. The application also includes construction of a new Biomass Gasification Unit and relocation of the truck maintenance facility and yard currently located east of Loveridge Road to within the project boundaries. The project site is in Pittsburg. The City of Pittsburg is the lead agency with final authority to approve the project, which is the proposed Mt. Diablo Resource Recovery Park project (project; proposed project).

The purpose of the project description is to describe the proposed project in a way that will be meaningful to the public, reviewing agencies, and decision-makers. As described in Section 15124 of the California Environmental Quality Act (CEQA) Guidelines, the project description in an environmental impact report (EIR) is required to contain the following information:

- The location of the proposed project.
- A statement of project objectives.
- A general description of the project's technical, economic, and environmental characteristics.
- A statement briefly describing the intended uses of the EIR.

The CEQA Guidelines state that a project description need not be exhaustive but should provide the level of detail needed for the evaluation and review of potential environmental impacts. The project description is the starting point for all environmental analysis required by the State CEQA Guidelines. Section 15146 of the State CEQA Guidelines states that the degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity, which is described in the EIR. The following project description will serve as the basis of the environmental analysis for the proposed project.

2.1 PROJECT LOCATION AND SETTING

PROJECT LOCATION

The project site is approximately 36 acres located in Pittsburg in eastern Contra Costa County. As shown on **Figure 2.0-1**, the site is on the western side of Loveridge Road just north of Pittsburg-Antioch Highway and State Route (SR) 4, and just south of the Burlington Northern and Santa Fe (BNSF) railroad and the shoreline of New York Slough. The project site encompasses the existing facility (17.5 acres), plus 18.5 acres located west and south of the existing facility. The site is located in the Antioch North Quadrangle and within the Los Medanos Land Grant.

PROJECT SITE CONDITIONS

A portion of the project site (approximately 17.5 acres) is currently developed as the Mt. Diablo Recycling Facility (MDRF), Recycling Center and Transfer Station (RCTS), Green Material Processing Operations Area), and Mixed Construction & Demolition Processing Area (Mixed C&D Processing Area) (collectively referred to as the "existing facility"). As shown on **Figure 2.0-2**, the MDRF and RCTS consist of two large interconnected industrial buildings immediately adjacent to Loveridge Road that have a total floor area of 190,804 square feet. Just south of these buildings is the main parking area, which is accessed by a private roadway that connects with Loveridge Road and curves to the northwest around the parking area. This parking area contains a fueling facility. The roadway continues north along the west side of the existing buildings, providing

access to the public scales and scale house and self-haul drop-off area. The BNSF railroad is located on the northwestern border of the project site, and a railroad spur runs into the site west of the RCTS.

The Green Material Processing Operations Area is located just south of the parking area. This area is unpaved and contains large stockpiles of unprocessed and processed plant materials and equipment such as wheel loaders. For processing, green material is stockpiled and then chipped and ground on a pad constructed with compacted gravel that is sloped to drain. Material is then loaded from the stockpile into transfer trailers where the material is transported to a permitted facility for composting or for use as alternative daily cover at a landfill.

To the west is the Mixed C&D Processing Area, which contains equipment for sorting and processing C&D materials, a large grinder, two 70-foot scales, one 35-foot scale, a second scale house, large stockpiles of unprocessed and processed C&D materials, and other equipment for loading and transport.

Approximately 18.5 acres of land to the west and south of the existing facility are also included as part of the proposed project, 10 acres of which are vacant. Approximately 5 acres of this area is currently used by the applicant for parking and storage. A portion of this area has been surfaced with compacted gravel. Approximately 3.5 acres of the 18.5-acre area, along the southerly border of the existing facility, was the former GWF Power Systems facility. GWF ceased operations and the improvements have been removed from the site.

A second access point from Loveridge Road is located at the northern end of the site, where additional parking is provided. A third access point from Loveridge Road, located at the southern end of the site, provides access to the 3.5-acre area to the south and a fire lane that stretches to the western boundary. A total of 79 parking spaces are currently provided on the project site. An approximately 3-acre parcel located on the east side of Loveridge Road at the northern tip of the project site is currently used for truck storage and maintenance purposes.

Landscaping and/or slatted chain-link fencing provide screening along the southern and eastern boundaries of the processing areas, as well as along a portion of the western boundary. A monument sign is located at the main entrance to the facility, with numerous informational, directional, and cautionary signs throughout the project site. Pole-mounted lighting is provided along the access road and in the parking area, processing areas, and other outdoor portions of the site.

On-site drainage is controlled through the use of drainage ditches and underground pipelines surrounding the perimeter of the existing facility that direct surface water flows toward an outfall along the western edge of the existing facility. The ditches include a landscaped stormwater treatment planter located along the eastern side of the MDRF building and a landscaped stormwater pretreatment bioswale located along the western edge of the existing facility. These facilities discharge stormwater via the outfall to an existing drainage ditch on the vacant lot to the west owned by USS-POSCO. This existing ditch traverses the 15-acre parcel to the west and the USS-POSCO site, flowing east to west away from the existing facility. The existing ditch conveys the stormwater generated from the existing facility, the 15-acre parcel to the west, and the eastern portions of the USS POSCO site to an existing 36-inch culvert that then discharges to an existing evaporation basin located near the northern portion of the USS-POSCO site.

FIGURE 2.0-1
PROJECT LOCATION

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FIGURE 2.0-2
EXISTING SITE PLAN

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The 3.5-acre former GWF site is almost entirely located in a separate watershed from the remainder of the project site and drains to Kirker Creek located along the southern boundary of this area. An existing on-site drainage system consists of concrete swales, inlets, and pipelines. This system conveys the on-site drainage from most of this 3.5-acre area into Kirker Creek via two separate outfalls, one located on the western side and the other located on the eastern side of the property. A small portion of this area in the northwest corner drains overland to the remainder of the project site (see **Figure 2.0-3**) (CBG 2014).

CURRENT OPERATIONS

The existing facility receives, sorts, processes, recycles, and transports municipal solid waste and recyclables, green waste, and C&D waste. In addition, portions of the site are used for parking, equipment storage, and containerized and uncontainerized commodity storage. The existing facility operates pursuant to a conditional use permit, and some operations (RCTS and Mixed C&D Processing Area) are covered by a solid waste facility permit (see additional discussion in subsection 2.2). The existing facility is permitted for 2,200 tons per day (TPD) with 1,500 TPD for RCTS, which includes the Mixed C&D Processing Area, 500 TPD for the MDRF, and 200 TPD for the Green Material Processing Area. The existing facility currently employs 83 full-time employees. A detailed summary of the existing facility and the individual operations (both actual and permitted) is provided below and in **Table 2.0-1**.

The current operations will continue under the proposed project (some operations are proposed to change under the project as described herein) and are summarized as follows:

Mt. Diablo Recycling Facility (MDRF)

The MDRF is a recycling facility that sorts and processes a variety of mixed recyclable materials, primarily from residential sources, including newspaper, cardboard, junk mail, and magazines, as well as California Redemption Value (CRV) and non-CRV glass, plastic, and aluminum. Material is dumped onto the tipping floor of the enclosed facility and pushed onto a conveyor hopper, where it travels along a series of sorting belts and screens. This processing equipment separates the material, after which it is stored in enclosed containers (also known as bunkers) and baled daily for storage and transport. This facility operates approximately 20 hours per day (it is permitted to operate 24 hours per day), seven days a week, and has a permitted capacity of 500 TPD.

Recycling Center and Transfer Station (RCTS)

The RCTS sorts and transfers municipal solid waste, including bulk materials from the public, green waste, wood waste, and mixed C&D debris. The RCTS accepts waste directly from the public. Waste materials are weighed at a drive-up scale and are then sorted on the tipping area floor and transferred to the appropriate on-site facility for further sorting, processing, and transport off-site for recycling or reuse. Materials that cannot be recycled are stored and then transported to a permitted landfill. This facility accepts electronic waste (E-waste), such as cell phones, computers, and televisions, and carpet, used oil, and tires. No hazardous, infectious, or liquid waste materials are accepted. A load check program is implemented to screen for such materials in incoming waste loads. Recovered household hazardous wastes are temporarily stored in a designated area in accordance with state regulations. This facility operates 24 hours per day as permitted, with a permitted capacity of 1,500 TPD. The facility receives waste from the general public from 7:00 a.m. to 6:00 p.m., seven days a week. The project applicant refers to this facility as the Transfer/Processing Facility.

Mixed C&D Processing Area

The Mixed C&D Processing Area consists of a 9,831-square-foot concrete pad that serves as a base for the C&D processing equipment and provides a stable platform for the loading of materials onto the sorting equipment. The equipment includes a loading hopper, elevated pick-line and walkways, storage bins beneath the pick-line, and shade canopies over the pick-line and workstations. Processing material is delivered to the facility in debris box trucks and commercial vehicles. After sorting, non-recyclable wastes are stockpiled and then loaded into transfer vehicles for transport to a permitted landfill for disposal within 48 hours. Recyclable materials are stored, processed, and marketed as recycled products. Fine materials separated during sorting are used as alternative daily cover at a landfill.

The Mixed C&D Processing Area currently operates from 7:00 a.m. to 5:00 p.m. seven days a week. The Mixed C&D Processing Area has a permitted capacity of 450 TPD, and the material received in this area is included within the 1,500 TPD permitted by the Solid Waste Facility Permit (SWFP) for the RCTS. Notwithstanding any limit imposed by the existing conditional use permit, the SWFP does not contain a limitation on the amount of material that may be processed in the Mixed C&D Processing Area.

The project applicant refers to this area as the Material Processing Facility.

Green Material Processing Operations Area

Green materials and wood waste are delivered to the existing Green Material Processing Operations Area from collection vehicles.[1] Green materials are stockpiled on storage pads that are constructed with compacted gravel, prior to chipping and grinding. Processed green materials are loaded onto transfer trailers and transported to a permitted facility for composting or may be used as alternative daily cover at a landfill. Wood chips are loaded onto transfer trailers and transported to biomass energy facilities or used as decorative materials for landscaping. This facility operates from 7:00 a.m. to 6:00 p.m. seven days a week. A Local Enforcement Agency (LEA) Notification created this operation in 2008 allowing up to 200 TPD of green waste to be received and processed separately from the materials processed under the RCTS permit. The tonnage processed at this area is excluded from solid waste permitting requirements.

The project applicant refers to this area as the Organics Processing Area.

Existing General Plan Designations and Zoning

The project site is designated by the City of Pittsburg General Plan as Industrial, which permits manufacturing, wholesale, warehousing and distribution, commercial and business services, research and development, agricultural, food and drug, industrial processing, and storage uses. The surrounding properties are also designated as Industrial. **Figure 2.0-4** shows the existing General Plan land use designations of the project site and adjacent properties.

[1] Green waste collection vehicles are the same size and type as typical garbage collection vehicles. They run on fixed routes throughout the residential service areas and pick up once a week or every other week, as scheduled.

FIGURE 2.0-3
EXISTING DRAINAGE FACILITIES

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FIGURE 2.0-4
EXISTING GENERAL PLAN LAND USE DESIGNATIONS

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Approximately 21 acres of the project site is zoned IG (General Industrial), and the remaining portion of the project site (15 acres) is zoned IL (Limited Industrial) pursuant to the Pittsburg Municipal Code (City of Pittsburg 2010). The IG and IL zoning districts provide for intense industrial uses on large parcels occupied by or directly adjacent to existing heavy industrial uses, as well as on small parcels in the vicinity of heavy industrial uses. Large recycling facilities, such as the project, require a Use Permit to operate within these zoning districts. All other properties surrounding the site are zoned IG. **Figure 2.0-5** shows the existing zoning of the project site and adjacent properties.

Surrounding Uses

Figure 2.0-6 shows the current uses of properties adjacent to the project site. Northwest of the project site, across the BNSF railroad, is an industrial facility operated by USS-POSCO Industries, which manufactures flat sheets of rolled steel. Northeast of the site, also across the BNSF railroad, is an industrial facility operated by Dow Chemical, which manufactures primarily agricultural and pest-control chemicals. East of the site, across Loveridge Road, are a vacant parcel, and two other large industrial facilities. South of the project site are East 14th Street and a Union Pacific Railroad (UPRR) spur line beyond. West of the project site is vacant land owned by USS-POSCO. The City approved the Columbia Solar Energy project on portions of this site, but it has not yet been constructed. The Contra Costa Industrial Park and other industrial uses are located across Loveridge Road to the northeast of the project site. There is an existing residential neighborhood about 2,900 feet (approximately one-half mile) west of the project site. The nearest residential area to the proposed project site is an approximately 4.4-acre medium density residential site approximately 1,500 feet southwest of the project site. The City Council approved General Plan and rezoning amendments to allow residential uses on the site in October 2013; however, the tentative map for the project site (Sunnyside Estates subdivision) is still pending.

2.2 PROJECT BACKGROUND AND HISTORY

The City of Pittsburg certified an EIR for the original facility (which consisted of only the RCTS) on February 21, 1995 (SCH No. 94063017) and issued a Conditional Use Permit (CUP) on March 6, 1995. A Solid Waste Facility Permit was issued from the City of Pittsburg Solid Waste Management Division to operate the RCTS at 1,500 TPD. On December 13, 1995, the California Integrated Waste Management Board, the state oversight agency at the time, concurred with the Solid Waste Facility Permit, which is reviewed every five years and was modified to address additional recycling programs. On March 27, 2007, the City of Pittsburg adopted a Negative Declaration and approved a Use Permit to physically expand the facility and add the Mt. Diablo Recycling Facility. On January 12, 2010, the City adopted another Negative Declaration (SCH No. 2009112035) and approved operational changes to the MDRF's Use Permit to expand its capacity to 500 TPD. As noted above, the Green Material Processing Area is operating at a peak flow of 200 TPD. The combined permitted tonnage for all project components is 2,200 TPD.

The project applicant is seeking to expand the existing facility to allow a permitted combined capacity of 5,500 TPD and to add 18.5 acres to the existing facility site for parking, commodity storage, future construction of a Biomass Gasification Unit, and relocation of the truck maintenance facility and yard, which would include an 18,000-square-foot structure in the southeastern portion of the project site (former GWF Power Systems facility).

2.3 PROJECT OBJECTIVES

REGULATORY BACKGROUND

Global Warming Solutions Act of 2006 (AB 32)

In 2006, the California Legislature adopted Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, establishing a cap on statewide greenhouse gas (GHG) emissions. A scoping plan for AB 32, entitled *Climate Change Proposed Scoping Plan: A Framework for Change*, was adopted by the California Air Resources Board (CARB) in December 2008. The scoping plan has a range of GHG reduction actions and measures to reduce GHG emissions associated with the solid waste industry, including reducing methane emissions at landfills, increasing waste diversion, composting and other beneficial uses of organic materials, and mandating commercial recycling. Compliance with the applicable measures contained in the AB 32 Scoping Plan is a primary objective of the proposed project.

Mandated Commercial Recycling and the 75 Percent Recycling Goal (AB 341)

In 2011, the California Legislature adopted AB 341 to clarify the responsibilities in implementing mandatory commercial recycling requirements for businesses that generate four or more cubic yards of commercial solid waste per week and multi-family residential dwellings with five or more units, which require local jurisdiction requirements for education, outreach, monitoring, and reporting. Through enactment of AB 341, the Legislature also directed the California Department of Resources Recycling and Recovery (CalRecycle) to propose a plan for the next step in the evolution of California's solid waste stream management. The law establishes a policy goal for California that not less than 75 percent of the solid waste generated is source-reduced, recycled, or composted by 2020. It also requires CalRecycle to provide a report to the Legislature by January 1, 2014, detailing strategies to achieve that policy goal.

PROJECT OBJECTIVES

- Serve as the regional recycling facility for eastern and central Contra Costa County, including the cities of Pittsburg, Concord, Oakley, Discovery Bay, and Antioch, parts of the unincorporated county, and Rio Vista in Solano County.

- Assist the City of Pittsburg and Contra Costa County in reducing greenhouse gas emissions and complying with the measures of the adopted AB 32 Scoping Plan by 2020 by generating renewable energy, increasing solid waste diversion rates, and expanding programs to provide recycling to businesses and multi-family residences.

- Assist the City of Pittsburg and Contra Costa County in maintaining compliance with AB 939 mandates requiring 50 percent diversion of solid waste from landfills and preparing to accommodate future AB 939 goals and mandates, such as assisting in the statewide recycling goal of a 75 percent recycling rate by 2020, consistent with AB 341.

- Upgrade and improve the existing facility to allow for more efficient service and to incorporate measures to reduce GHG emissions. The improvements include (1) an expansion of current recycling efforts, (2) the construction of a Biomass Gasification Unit to generate 1 megawatt per hour of electrical power using 10,400 tons of waste wood per year, and (3) installation of solar panels on the rooftops of the two existing buildings to produce up to 800 kilowatt-hours of renewable energy.

FIGURE 2.0-5
EXISTING ZONING DISTRICTS

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FIGURE 2.0-6
SURROUNDING USES

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- Assist the City of Pittsburg and Contra Costa County in implementing the mandatory commercial recycling program required by AB 341.

- Increase facility capacities and expand hours of operation to better serve customers and to meet projected solid waste generation rates until the year 2035.

- Increase efficiency and productivity of the facility by including a new truck maintenance facility and yard within the project site.

- Consolidate all project components under one Solid Waste Facility Permit issued by the City of Pittsburg Local Enforcement Agency and with the concurrence of the California Department of Resources Recycling and Recovery (CalRecycle).

2.4 CHARACTERISTICS OF THE PROPOSED PROJECT

The proposed project consists of a request for a Conditional Use Permit (CUP) for the expansion, reorganization, and operation of the existing facility on a 36-acre site. The expanded facility will be called the Mt. Diablo Resource Recovery Park (MDRRP). The MDRRP will consist of the MDRF, Transfer/Processing Facility (formerly referred to as Recycling Center and Transfer Station), Material Processing Area (formerly referred to as Mixed C&D Processing Area), and an Organics Processing Area (formerly referred to as Green Material Processing Operations Area). **Table 2.0-1** provides a summary of the proposed changes to the operations of these existing facilities, while detailed descriptions of each are provided below.[2] Depending on the materials entering the facility, individual project components would be allowed to operate up to the design capacity of each individual component, though the facility would not exceed the overall permitted capacity of 5,500 TPD. **Figure 2.0-7** illustrates the proposed overall site plan.

The proposed MDRRP facility would also include a new Biomass Gasification Unit at the northwesterly portion of the project site (see **Figure 2.0-8**) and a truck maintenance facility and yard at the southeastern portion of the site (former GWF Power Systems facility) (see **Figure 2.0-9**). **Figure 2.0-10** shows the proposed building elevations for the MDRF and Transfer/Processing Facility, while **Figure 2.0-11** shows the proposed building elevations for the truck maintenance facility.

[2] As required by CEQA, the baseline analysis used in this EIR to analyze environmental impacts of the project uses the actual hours of operation and not the permitted hours of operation (CEQA Guidelines Section 15125(a)).

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FIGURE 2.0-7
PROPOSED SITE PLAN

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FIGURE 2.0-8
PROPOSED ELEVATION – BIOMASS GASIFICATION UNIT

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FIGURE 2.0-9
PROPOSED SITE PLAN – TRUCK FACILITY

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FIGURE 2.0-10
PROPOSED BUILDING AND ROOF PLAN – MDRF AND TRANSFER/PROCESSING FACILITY

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FIGURE 2.0-11
PROPOSED BUILDING ELEVATIONS – TRUCK FACILITY

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TABLE 2.0-1
COMPARISON OF EXISTING AND PROPOSED OPERATIONS

	Existing	Proposed
Facility Name	**Mt. Diablo Recycling Facility**	**Mt. Diablo Recycling Facility**
Solid Waste Facility Permit (SWFP) Type	Exempt from SWFP – less than 10% residual	Revision to SWFP 07-AC-0043
Material Types	Residential Recyclables Mixed Commercial Recyclables	Residential Recyclables Mixed Commercial Recyclables
Projected Average Capacity	500 TPD	1,000 TPD
Permitted Hours of Operations	24 hours	24 hours
Actual Hours of Operations	7:00 a.m. to 6:00 p.m. (public) 3 a.m. to 12 a.m. (commercial)	n/a
Number of Employees	27 peak shift	40 peak shift
Operations Name	**Recycling Center and Transfer Station**	**Transfer/Processing Facility**
SWFP Type	SWFP 07-AC-0043	Revision to SWFP 07-AC-0043
Material Types	Municipal Solid Waste Electronic Waste	Municipal Solid Waste Commercial Food Waste Residential Food Waste Electronic Waste
Projected Average Capacity	1,500 TPD	2,700 TPD
Permitted Hours of Operations	24 hours	24 hours
Actual Hours of Operations	7:00 a.m. to 6:00 p.m. (public) 3:00 a.m. to 1:00 a.m. (commercial)	n/a
Number of Employees	8 peak shift	16 peak shift
Operations Name	**Green Materials Processing Operations Area**	**Organics Processing Area**
SWFP Type	Enforcement Agency Notification 07-AC-0044	Revision to SWFP 07-AC-0043
Material Types	Green Waste Wood Waste	Green Waste Wood Waste Co-Collected Green Waste and Food Scraps (Residential)

	Existing	Proposed
Projected Average Capacity	200 TPD	800 TPD
Permitted Hours of Operations	7:00 a.m. to 6:00 p.m.	24 hours
Actual Hours of Operations	7:00 a.m. to 6:00 p.m.	n/a
Number of Employees	4 peak shift	8 peak shift
Operations Name	**Mixed C&D Processing Area**	**Material Processing Area**
SWFP Type	SWFP 07-AC-0043	Revision to SWFP 07-AC-0043
Material Types	Mixed Construction and Demolition Debris	Mixed Construction and Demolition Debris and dry commercial waste and self-haul wastes
Projected Average Capacity	450 TPD	1,000 TPD
Permitted Hours of Operations	7:00 a.m. to 5:00 p.m.	4:00 a.m. to 10:00 p.m.
Actual Hours of Operations	7:00 a.m. to 5:00 p.m.	n/a
Number of Employees	7 peak shift	24 peak shift

MT. DIABLO RECYCLING FACILITY

The proposed project would result in the following physical changes to the existing MDRF:

- Increase capacity from 500 TPD to 1,000 TPD
- Add a second processing line for commercial material including additional dry commingled recyclable materials and self-haul waste for processing
- Add solar panels to the rooftop to generate 800 kilowatt-hours of energy (combined output with the panels on the roof of the Transfer Processing Facility)

Following are detailed descriptions of the proposed improvements and operational and permit changes listed above.

Commercial Recycling and Materials

AB 341 requires that a mandated commercial recycling program start by July 1, 2012. CalRecycle adopted relevant regulations in December 2011. The regulation was approved by the Office of Administrative Law on May 7, 2012, and became effective immediately. Approximately half of the state's waste stream comprises commercial waste.

Consistent with AB 341, the proposed MDRF would add a second processing line to allow additional processing of commercial material, as shown on **Figure 2.0-7**. The MDRF would operate indoors up to 24 hours per day (as currently permitted) and process 1,000 TPD of mixed recyclables.

Solar Panels

The project includes the addition of solar panels to the rooftop of the MDRF building (solar panels are also proposed to be located on the Transfer/Processing Facility). **Figure 2.0-10a** illustrates the proposed building elevations with installation of the solar panels. These buildings could support approximately 1,000 kilowatt panels with the capability to generate up to 800 kilowatt-hours of renewable energy. Current regulations allow the installation of solar panels administratively; however, the installation of the solar panels is being included in the proposed project to further the project's objective of producing renewable energy and reducing greenhouse gas (GHG) emissions.

TRANSFER/PROCESSING FACILITY

The proposed project would result in the following changes to the existing RCTS:

- Increase capacity from 1,500 TPD to 2,700 TPD
- Add commercial and residential food waste processing capacity in the building to produce up to 480 TPD (out of the 2,700 TPD) of compost and/or anaerobic digestion feedstock
- Add solar panels to the rooftop to generate 800 kilowatt-hours of energy (combined output with the panels on the roof of the MDRF)

Following are detailed descriptions of the proposed improvements and operational and permit changes listed above.

Capacity

The project applicant proposes to continue a 24-hour permitted operation and increase the capacity to transfer and process up to 2,700 TPD as part of this project component.

Commercial Food Waste

The indoor operations would include commercial food waste processing equipment to remove contaminants from source-separated food waste received in commercial waste loads and food material, and to process the food waste and material into organic feedstock for composting facilities or anaerobic digestion facilities. Food waste that is part of the commercial solid wastes includes source-separated food wastes generated by stores, offices, and other commercial sources, excluding residences and industrial wastes per Section 17225.12 of Title 14 of the California Code of Regulations (CCR). Food material, as defined in Section 17852(a)(2) of Title 14, means any material that was acquired for animal or human consumption, that 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 at prisons, schools, and hospitals), or residential food scrap collection. Contaminants may include glass, plastics, corks, forks, napkins, and silverware from restaurants and cafeterias. Contamination levels vary from 2 to 10 percent of the incoming food waste feedstock. The location of the food waste processing equipment is shown on **Figure 2.0-7**.

Food Waste Processing Operations

The food waste processing equipment would be located inside the Transfer/Processing Facility. The proposed equipment for the facility includes, but is not limited to, a hopper, sort line conveyor, sort line grinder feed conveyor, hammermill grinder, grinder discharge conveyor, and stacking conveyor for loading a truck or bins to transport separated food waste to a compost or anaerobic digestion facility. The storage of food waste is limited to 48 hours, but these materials will typically be processed in less than 24 hours between the receipt of the material and the load-out of the processed organic feedstock.

Processed food waste would be required to be free of plastic, glass, silverware, and other contaminants that could cause damage to a grinder or be deleterious to the wet anaerobic digestion process. Primarily, the operator plans to use a depackaging unit that can separate large volumes of food material from surrounding packaging, filtering out contaminants to create an organic pulp.

Alternatively, plastic and other contaminant material would be removed manually on a sort line. A horizontal hammermill grinder is proposed for use with this type of operation. Material would be fed through a feed conveyor into the hammermill grinder. The hammermill would break the material into smaller pieces. Below the hammermill's hammer circle would be a series of grates. The material would remain inside the hammermill and be crushed or torn between the hammers and grates until its size is sufficiently reduced to pass through the grates, where it would be discharged onto a conveyor below.

For either system operator, a transfer truck would receive the processed food waste from the food waste processing equipment. The anticipated system capacity would be 20 tons per hour but may

vary depending on the materials being sorted and any future upgrades or additions. Similar mechanisms or procedures may be incorporated into the system.

Residential Food Waste

In addition to the food waste processing equipment, indoor food waste processing would also include food waste, food material, co-collected food waste and green waste from residential sources, and/or green waste being placed in large bunkers and mixed in various blends to produce organic feedstock for composting facilities or anaerobic digestion facilities. Please note that some of these materials will be processed at the Organics Processing Facility.

Commercial and Residential Food Waste Mixing Bunker Operations

Food waste, food material, and co-collected green waste with food waste from residential and commercial sources would be placed in large bunkers and mixed in various blends to produce organic feedstock for composting facilities or anaerobic digestion facilities. The storage of food waste and green waste commingled with food waste would be limited to 48 hours but will typically be processed in less than 24 hours from receipt of the material to the load-out of the processed organic feedstock. Food waste and green waste would be mixed in bunkers in the Transfer/Processing Facility, with blends up to 50 percent food waste. A front-end loader would top-load transfer trailers of mixed organic feedstock for delivery to off-site, permitted facilities. The organic feedstock mix would be used as feedstock for compost or an anaerobic digestion process.

Solar Panels

The installation of the solar panels on this project component will produce renewable energy and reduce GHG emissions. Solar panels would be added to the rooftop of the Transfer/Processing Facility and Mt. Diablo Recycling Facility buildings, which could support approximately 1,000 kilowatt panels with the capability to generate up to 800 kilowatt-hours of renewable energy.

ORGANICS PROCESSING FACILITY

The project proposes the following physical changes to the existing Green Material Processing Area:

- Allow the processing of co-collected green material and food material from residential sources
- Provide for up to 10,000 cubic yards of storage
- Increase the permitted operating hours from 7 a.m. to 6 p.m. to 24 hours per day and capacity from 200 TPD to 800 TPD
- Add a second grinder

Following are detailed descriptions of the proposed improvements and operational and permit changes listed above.

Collection of Green Waste with Food Material and Wood Waste

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 percent of the organic materials from landfilling by 2020, and for the AB 32 Scoping Plan, to increase compost use. The amount of residential food material varies from 5 to 10 percent of the green waste volume, based on seasonal factors and special holiday events. Food material is defined in state regulations (Title 14) to include residential food scrap collection.

The co-collected residential organics would be delivered to the site from collection vehicles. A peak of 400 TPD of material could 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.[3] A site-specific Operations Plan and Odor Impact Minimization Plan (in **Appendix B**) has been prepared as part of the proposed project, which includes multiple design and operational measures to reduce odors, including an outdoor storage time limit of 48 hours, and would only allow co-collected food material from residential sources to be stored outside.

The Organics Processing Facility would have capacity to store up to 10,000 cubic yards of organic material in four stockpiles that could reach up to 80 feet wide and 80 feet long, with an average height of 15 feet and a peak height of 20 feet. The stockpiles will be separated by fire lanes consistent with applicable fire district standards. One stockpile will be for the storage of incoming co-collected residential organics, and the second stockpile will be for the processed residential organics. The third stockpile will be for the storage of wood wastes, and the fourth stockpile for the processed wood chips. The specific stockpile locations and grinding area will need to vary over time to receive and process the materials but will follow these basic guidelines.

The co-collected residential organics would be 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 would be constructed with compacted gravel and sloped to drain. The pad would have year-round access where transfer trailers could be loaded out in a timely manner. The processed material would be loaded from the stockpile into transfer trailers in order to transfer the material to a permitted facility for composting or to be used as feedstock at an anaerobic digestion facility.

Wood waste would continue to be delivered to the site from roll-off vehicles and the public's vehicles and then recovered from the Material Processing Facility Area. A peak of 400 TPD of wood waste may be received during the peak season on an all-weather operational pad and would be part of Solid Waste Facility Permit activity. For purposes of design and operations capacity, the wood waste from the Mixed Material 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 Material Processing Area.

The wood waste would continue to be stockpiled on a pad for a proposed maximum period of 15 days. Chipping and grinding will generally occur daily. The storage pad will be constructed with compacted gravel and sloped to drain. Wood chips not used at the proposed Biomass Gasification Unit (see below) would be loaded from the stockpile into transfer trailers and transported to other facilities.

[3] The Organics Processing Facility operational area would be included in the Solid Waste Facility Permit since the amount of putrescible material may exceed 1 percent, and no longer qualify as green material that could be permitted under an Enforcement Agency Notification Tier, as with current operations. Putrescible material is material that is subject to putrefaction, or the decomposition of animal proteins, which can give off a putrid odor.

Grinder

A second grinder would be added to the outdoor operations areas of the facility and used at both the Organics Processing Facility and the Material Processing Area.

MATERIAL PROCESSING AREA

The project proposes the following physical changes to the existing Mixed C&D Processing Area:

- Add additional bays to the existing processing line to achieve 500 TPD capacity for the line
- Add a second processing line with 500 TPD capacity to process a total of 1,000 TPD
- Add additional processing for dry commercial recyclables and self-haul wastes
- Expand areas for storage of commodities and equipment, and for parking
- Increase the operating hours from 7:00 a.m. to 5:00 p.m. to 4:00 a.m. to 10:00 p.m.

The project applicant proposes to extend the hours of operation at this facility during the peak construction season from the late spring to the fall. Additional bays and processing lines will be added to the processing line to increase the diversion rate for these materials. The western portion of the project site (approximately 10 acres) will be used for commodity, vehicle, and equipment storage and the 5-acre area will continue to be used for parking and storage.

ADDITIONAL LAND

An 18.5-acre area west and south of the existing facility is included in the proposed project. Approximately 15 acres of this area will be used for containerized commodity storage, equipment storage, the organics processing area, parking, and the proposed Biomass Gasification Unit, and organics processing area. The applicant currently uses 5 acres of this area for parking and storage. While portions of this area contain some pavement and gravel areas that are in poor condition, the project applicant proposes to pave or surface this area with impervious surfaces. Approximately 3.5 acres of this area (former GWF site) will be used for the proposed truck maintenance facility and yard (discussed further below).

BIOMASS GASIFICATION UNIT

The proposed Biomass Gasification Unit (BGU) portion of the project would include the following physical improvements:

- Construct and operate a BGU
- Allow 24-hour operation and maintenance of the BGU
- Utilize 40 TPD of clean wood chips processed at the Organics Processing Facility or the Material Processing Area as the fuel source for the BGU
- Generate 1 megawatt per hour of renewable energy primarily for use for on-site operations

- Install transmission lines to power the MDRF and the Material Processing Area and to sell excess electricity to Pacific Gas and Electric (PG&E)

The project applicant proposes to construct and operate the BGU on a currently undeveloped area of the project site located at the northwesterly portion of the project site (see **Figure 2.0-7**). **Figure 2.0-8** provides the proposed site plan specifically for the BGU. The proposed BGU would be designed to allow 24-hour operation and maintenance, would be constructed of metal, and would feature colors and materials similar to the current color scheme of the Mt. Diablo Recycling Facility.

The proposed BGU would utilize proven gasification technologies that convert biomass into a synthetic natural gas ("syngas") through the process of thermo-chemical conversion. The BGU would use clean wood chips processed at the on-site Organics Processing Facility or the Material Processing Area as the fuel source. The thermo-chemical biomass gasification process "cooks" biomass in an oxygen-starved environment. By depriving the fuel of sufficient oxygen, the biomass does not burn but rather gives off a hydrogen-rich syngas. As the biomass gives off the syngas, it is transformed into bio-char and ash of approximately 1 to 5 percent of the volume of biomass fuel. The syngas is then captured, cleaned by a series of scrubbers and filters, and cooled before being sent as fuel to the genset. The syngas would be used to fuel a specially modified natural gas genset that would provide renewable electricity and heat to the structures and equipment on-site.

Bio-char and ash would be removed from the conversion chamber using pumped slurry. This slurry would then be cooled and filtered. The resulting char byproduct would be separated out using a special mechanical separator for resale as a soil amendment, sequestering carbon in the ground for up to 1,000 years. The water would again be filtered, cooled, and recirculated.

Power Generation

The power units are based on a spark-ignited engine genset. Depending on the model chosen, the engines are capable of providing up to 1 megawatt (net) operating on syngas. The applicant would customize the system to allow syngas carburetion for this engine and provide standard paralleling switchgear for electrical output with up to 1 megawatt per hour.

Transmission Lines

All proposed transmission lines would be underground and connect to the Mt. Diablo Recycling Facility and the Material Processing Area. A feed-in tariff is available for selling excess electricity back to PG&E during off-peak periods. As such, the project includes construction of underground transmission lines to the current utility lines in order to sell excess electricity.

TRUCK MAINTENANCE FACILITY AND YARD

The project proposes the construction of a truck maintenance facility and yard that would replace an existing facility currently located east of the project site across Loveridge Road. The facility would consist of a 30-foot-tall, 18,000-square-foot building comprising a 15,600-square-foot shop and a 2,400-square-foot office/storage area, with 2,000 square feet of open air canopies on the eastern side of the building (see **Figure 2.0-11** for proposed building elevations). This facility would also include a new truck fueling island that would be relocated from the MDRF main parking area. The facility will be used for the repair and maintenance of the facility's approximately 60 commercial and residential refuse trucks, as well as RCTS and MDRF equipment. The truck maintenance facility and yard includes a 47-space parking/storage area

for the trucks and a wash area. This area also provides 41 parking spaces for employees and other persons. No painting will occur on the site (see **Figure 2.0-9**).

The truck maintenance facility and yard will have 11 full-time mechanical and shop support personnel. Operational hours will be 9 a.m. to midnight Monday through Friday, 7 a.m. to 5 p.m. on Saturday, and 9 a.m. to 5 p.m. on Sunday.

SOLID WASTE FACILITY PERMIT

The project applicant proposes to obtain one solid waste permit to cover the proposed project. The existing solid waste permit covers the RTCS and the Material Processing Facility but is not required for the existing MDRF or Green Materials Processing Operations Area. If the expanded operations as proposed are approved, a solid waste permit will be required for all project components. The permit would be issued by the City of Pittsburg Local Enforcement Agency and with the concurrence of the California Department of Resources Recycling and Recovery (CalRecycle).

OPERATIONS AND EMPLOYMENT

The proposed hours of operations for the four existing operational components are shown in **Table 2.0-1** above. **Table 2.0-1** also shows the anticipated number of full-time employees at each of these project components during a peak shift.

The proposed truck maintenance facility and yard will operate between 9:00 a.m. and 12:00 a.m. on weekdays, between 7 a.m. and 5 p.m. on Saturdays, and between 9:00 a.m. and 5:00 p.m. on Sundays and would employ 11 full-time mechanic and shop personnel. The BGU component would be permitted to operate 24 hours per day with 2 employees.

The proposed project would employ a total of 145 employees (an increase of 62 employees), with up to 90 employees working during a peak shift (an increase of 44 employees).

DUST MINIMIZATION PLAN

A Dust Minimization Plan (**Appendix C**) was prepared as part of the proposed project to protect public health and air quality. The plan summarizes the current dust control practices implemented at the facility, which include the use of two dedicated street sweepers and a water truck as well as requirements to cover truckloads with tarps and limit speed to 15 miles per hour. Dust control on the site would be accomplished with watering according to the schedule used at the facility. The plan also proposes specific measures to control dust during project construction and operation. These measures apply to both indoor and outdoor operations at each facility. Measures include paving of access roads, use of misting systems and equipment sprayers, strict enforcement of storage time limits, covering or watering of stockpiles, wind-level monitoring, and worker education/awareness training.

OPERATIONS AND ODOR IMPACT MINIMIZATION PLAN

An Operations and Odor Impact Minimization Plan (**Appendix B**) was prepared as part of the proposed project to minimize odor emissions and prevent nuisances in the surrounding area. The plan identifies potential sensitive receptors in the area and establishes odor monitoring and complaint response protocols. In addition, the plan provides design and operational considerations and procedures to minimize odor emissions associated with the proposed

project. These include proper drainage to prevent standing water, screening of incoming loads to eliminate unacceptable waste materials, strict enforcement of storage time limits, monitoring of stockpiles to ensure optimal conditions, and worker education/awareness training. The plan also includes a contingency plan to control odors should they occur.

LIGHTING AND LANDSCAPING

Minimal new light sources and landscaping would be added as part of the project. New light sources would be added to the proposed Truck Maintenance Facility with light sources directed to pathways and roadways. In addition, parking lot light sources would be shielded or directed away from the project boundaries in accordance with Pittsburg Municipal Code Section 18.82.030, Glare.

Landscaping would be installed on the project site in order to achieve the minimum 10 percent lot coverage per the City's property development regulations for the IL and IG zoning districts (Municipal Code Section 18.54.115).

SIGNAGE

The project applicant proposes to add numerous signs throughout the project site, including a new monument sign at the site's main entrance. Illustrations of the proposed signs are provided on **Figure 2.0-12,** while the locations of the proposed signs are shown on **Figure 2.0-7**.

PARKING

As described above, 79 parking spaces are currently provided on the project site. An additional 60 parking spaces are proposed in the western portion of the site, and 41 parking spaces would be added at the Truck Maintenance Facility (see **Figure 2.0-7**). Therefore, a total of 180 standard-sized parking spaces would be available for employees and the public scattered throughout the project site. According to the facility's approved parking variance, the project must provide a minimum of one parking stall per 2,450 square feet of building area. With the addition of the proposed truck maintenance facility, the overall facility would have a total floor area of 208,804 square feet and a minimum parking requirement of 86 stalls. Therefore, the project would exceed the minimum parking standard by 88 stalls.

ACCESS AND CIRCULATION

As described above, there are currently three points of access to the project site, all from Loveridge Road. No changes to the existing site access and circulation are proposed as part of this project. Site access points and internal roadways are shown on **Figure 2.0-7**.

The project applicant proposes to revise the facility's use permit to allow additional trucks and collection vehicles to access the site. The project would increase its anticipated vehicle trips from 1,200 trips per day to 5,620 trips per day.

FIGURE 2.0-12 PROPOSED SIGNAGE

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STORM DRAINAGE

Stormwater runoff generated within the existing site will continue to be collected and conveyed by the existing on-site storm drainage system of ditches and pipelines previously described. The existing on-site system and existing drainage ditch across the USS-POSCO site have adequate capacity for the additional runoff generated by the proposed development.

The proposed development on the 15-acre parcel to the west will include the replacement of the existing open ditch on this parcel with a 36-inch-diameter pipeline. The proposed development of this parcel including complete impervious surfaces, either pavement or covered structures, will increase the stormwater peak flows from this parcel from 9.2 cubic feet per second (cfs) to 15.8 cfs. The 36-inch pipeline and the downstream existing ditch and 36-inch culvert have adequate capacity to convey the increased peak flows from the existing site and the fully developed 15-acre area.

Redevelopment of the former GWF site would include the installation of a new on-site stormwater system that will collect and convey site runoff to Kirker Creek via the two existing outfall locations. This proposed stormwater system will incorporate a detention component to ensure the peak flows from this portion of the project site do not exceed the existing conditions. The detention component will likely include an underground vault that will provide adequate storage to attenuate the peak flows and not exceed existing peak flows (CBG 2014). Alternatively, the project applicant may choose to reroute drainage from this area northward to the remainder of the project site to be discharged into the existing ditch on the USS-POSCO property.

CONSTRUCTION

Major construction activities associated with the proposed project would include the construction of the C&D processing line, Biomass Gasification Unit, and truck maintenance facility and yard, as well as drainage improvements and paving/surfacing on approximately 18.5 acres of the project site. The remaining activities would consist of interior tenant improvements and installation of new equipment inside or on the exterior of the existing buildings.

The construction schedule for the C&D processing line is approximately four weeks. Site preparation and paving would take approximately one week and would require very limited to no grading, as the site is flat and compacted from previous use. Approximately 13 truckloads of concrete would be needed to pour a 5,940-square-foot pad to support the processing line. The processing line components would be delivered via flatbed truck and assembled with a crane over a one-week period. Electrical and mechanical contractors would then complete assembly over a two-week period.

The construction schedule for the Biomass Gasification Unit is approximately ten weeks and could start in 2016, if City approval is granted. Site preparation and paving would take approximately one week and would require minor grading. Approximately nine truckloads of concrete would be needed to pour a 4,000-square-foot pad to support the BGU. The BGU components would be delivered via flatbed truck and assembled with a crane unit over a period of approximately five weeks. Electrical and mechanical contractors would then install the electrical system and piping over a four-week period.

Construction of the proposed truck maintenance facility and yard would require minor grading as the site is flat and compacted from previous use (former GWF site). Grading and undergrounding of utilities is expected to take six weeks, construction of the building including

the pad is expected to take eight months, and site work/landscaping is expected to take two months, for a total construction period of approximately one year.

Construction of drainage improvements would include the replacement of the existing open ditch with a 36-inch-diameter pipeline. The project may also include rerouting drainage from the 3.5-acre area from draining to Kirker Creek to draining into the existing ditch on the USS-POSCO property. If drainage is rerouted to the ditch, a detention system will be constructed on-site in order to detain the rerouted flows and not exceed the capacity of the existing ditch. The detention volume required is approximately 0.2 acre-feet. The detention system would consist of underground pipes with meters or aboveground ditches or swales.

Portions of the site are paved or contain some surfacing that is in poor condition. Approximately 10 acres of the site have no pavement. The applicant proposes to replace and/or pave or surface these areas (approximately 18.5 acres) with impervious surfaces.

Installation of the proposed commercial recycling and food waste processing equipment would require the use of a concrete saw to modify the existing concrete pads within the MDRF and Transfer/Processing Facility in order to install the recessed conveyors.

RAIL HAUL OPERATIONS PLAN

With the advent of federal Subtitle D (Subpart 257 and 258, Title 40, Federal Code of Regulations) in 1993, regional landfills have replaced local landfills as a cost-effective landfill disposal option. The purpose of the rail haul option would be to offer an alternative to hauling solid waste using conventional collection trucks for considerable distances across Contra Costa County. The BNSF Railroad is located to the northwest of the project site, and a railroad spur exists on the property west of the Transfer/Processing Facility. The Rail Haul Operations Plan is a future option being considered by the project applicant but is not proposed for implementation at this time. Therefore, this option will be evaluated in the DEIR at a programmatic level. Should it be proposed at a later date, further CEQA analysis would be required.

Under the Rail Haul Operations Plan option, solid waste collection directed to the Transfer/Processing Facility at the Mt. Diablo Resource Recovery Park would be unloaded on the tipping floor. From the tipping floor, unrecyclable solid waste would be placed in collection containers for long-haul by rail to a permitted regional landfill.

2.5 REQUIRED APPROVALS

The proposed project will require the following approvals:

- City of Pittsburg – Conditional Use Permit and Design Review
- City of Pittsburg – Solid Waste Management Division
- California Department of Resources Recycling and Recovery (CalRecycle) – Solid Waste Facility Permit Revision
- Bay Area Air Quality Management District – Regulation 2 Permit Revisions
- State Water Resources Control Board – General Construction Permit

Additional approvals may be required from the following agencies:

- California Department of Toxic Substances Control
- California Department of Transportation (Caltrans)

REFERENCES

CARB (California Air Resources Board). 2008. *Climate Change Proposed Scoping Plan: A Framework for Change.*

CBG (Carlson, Barbee & Gibson, Inc.). 2014. *Drainage Assessment, Mount Diablo Resource Recovery Park SEG Trucking Maintenance Facility, Pittsburg, California.*

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