3.6 Public Services and Utilities

This section of the Draft EIR (DEIR) evaluates the potential impacts of the proposed project on fire protection, water supply, and wastewater services.

The City published a Notice of Preparation (NOP) for the project. A copy of the NOP, along with comments received during the public review period, is contained in **Appendix A**. Comments received related to public services and utilities were considered in the preparation of this section.

3.6.1 FIRE PROTECTION

In this section, the existing fire protection services provided in the project area are discussed and the project's potential to increase demand for such services is evaluated. In addition, the adequacy of emergency access to the site is evaluated. This analysis is based on a review of the Conditional Use Permit Application Package for the proposed project (Contra Costa Waste Services 2010) and consultation with the Contra Costa County Fire Protection District.

3.6.1.1 EXISTING SETTING

Contra Costa County Fire Protection District

Service Area

The Contra Costa County Fire Protection District (CCCFPD or District) provides fire protection and suppression services for the City of Pittsburg and surrounding Bay Point community. In addition, the District provides primary fire protection service to the majority of the county, including the cities of Antioch, Clayton, Concord, Lafayette, Martinez, Pleasant Hill, and San Pablo. The District also provides fire prevention services to all unincorporated areas of the county, including the communities of Alamo (north of Livorna), Bay Point, El Sobrante, North Richmond, and Pacheco. The CCCFPD is also contracted to provide fire prevention, plan review, and fire investigation services to Bethel Island, Brentwood, Byron, Discovery Bay, Knightsen, and Oakley. The eastern portion of the county is protected by the East Contra Costa Fire Protection District (ECCFPD). The CCCFPD has a mutual aid agreement with the ECCFPD for emergency response (Leach 2009).

Stations

The CCCFPD operates out of 30 fire stations located throughout its service area. The District's Battalion 8 serves the cities of Pittsburg and Antioch, as well as the surrounding unincorporated area, including Bay Point, from eight stations. Three of these stations are located within the City of Pittsburg: (1) Station 84 located at 1903 Railroad Avenue; (2) Station 85 located at 2331 Loveridge Road; and (3) Station 87 located at 800 West Leland Road. Station 85, located less than 1 mile south of the project site, is the primary responding station to the project site.

Response Times and Ratings

The CCCFPD receives approximately 42,000 urban fire calls per year from within its service area. About 10,500, or 25 percent, of these calls are from East County, which includes the City of Pittsburg (City of Pittsburg 2001, p. 11-14). The District has an objective to uphold a five-minute primary response time to 90 percent of all service calls. Generally, service can be provided in this time frame to areas located within 1.5 miles of a fire station (City of Pittsburg 2001, p. 11-14). As described above, the project site is located less than 1 mile north of Station 85, so it is assumed response time to the project site would be less than the five-minute objective.

The CCCFPD operates a countywide early warning system for industrial fires. Called the Community Warning System (CWS), sirens installed at industrial facilities automatically sound when an incident occurs. The system alerts residents via television and radio announcements.

The CCCFPD has an Insurance Service Office (ISO) rating of 3 (Leach 2009). The ISO is a private organization that surveys fire departments in cities and towns across the United States and rates fire protection service providers on a scale from 1 to 10, with 1 being the highest and 10 being lowest. This rating considers a community's fire defense capacity versus fire potential and then uses the score to set property insurance premiums for homeowners and commercial property owners (City of Pittsburg 2001, p. 11-14). The ISO rating is based on a number of factors, including personnel, facilities, response times, fire flow capacities, and the general character of development in the area (Contra Costa County 2001, p. 8-12).

3.6.1.2 REGULATORY FRAMEWORK

State

California Occupational Safety and Health Administration

In accordance with the California Code of Regulations, Title 8 Sections 1270 "Fire Prevention" and 6773 "Fire Protection and Fire Fighting Equipment," the California Occupational Safety and Health Administration has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance, and use of all firefighting and emergency medical equipment.

Uniform Fire Code

The Uniform Fire Code (UFC) contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The UFC also contains specialized technical regulations related to fire and life safety.

California Health and Safety Code

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code, which includes regulations for building standards, including fire protection and notification systems, facilities fire suppression training, fire protection devices such as extinguishers, and smoke alarms in high-rise buildings and child-care facilities.

Local

City of Pittsburg General Plan

The City adopted its current General Plan in 2001. **Appendix F** provides those General Plan policies relevant to the proposed project, as well as a preliminary evaluation of the project's consistency with these policies. While this DEIR discusses the project's consistency with the General Plan pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15125(d), the City will ultimately make the determination of the project's consistency with the General Plan.

3.6.1.3 IMPACTS AND MITIGATION MEASURES

Standards of Significance

The impact analysis provided below is based on the CEQA Guidelines Appendix G thresholds of significance. The project would have a significant impact related to public services if it would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant physical environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

1) Fire protection services
2) Police protection
3) Schools
4) Parks
5) Other public facilities

The Initial Study prepared for the proposed project (see **Appendix A**) determined that the project would have no impact or a less than significant impact related to police protection services, schools, parks, and other public facilities. Further, the Columbia Solar Project Mitigated Negative Declaration (State Clearinghouse No. 2013012038; **Appendix D**) found no potentially significant impacts in the areas of Public Services and Utilities as a result of development and use of the 15 acre vacant site onto which the proposed project would expand. Therefore, these issues (significance thresholds 2, 3, 4, and 5) are not discussed further in this section. The Rail Haul Operations Plan option would not contribute to any potential public services issues and therefore is not addressed in this section.

Methodology

The analysis of fire protection impacts is based upon review of the project, applicable City regulations, and consultations with the CCCFPD.

Project Impacts and Mitigation Measures

Increased Demand for Fire Protection Services

Impact 3.6.1.1 Implementation of the proposed project could result in an increased demand for fire protection services, requiring new or expanded CCCFPD facilities or equipment. This impact is **less than significant.**

The project proposes to increase the total number of full-time employees employed by the facility as well as the number of employees present on the site during a peak shift. In addition, the project proposes to expand the types, capacities, and hours of operations at the facility, which will result in the storage of a greater amount of various waste materials on the site. The project also proposes to construct and operate a truck maintenance facility and yard, a biomass gasification unit and solar panels and electrical conveyance infrastructure on the site. These project components could pose a greater risk of fire and/or emergency conditions on the site, thereby increasing demand for fire protection and emergency medical services.

The CCCFPD has an objective to uphold a five-minute primary response time to 90 percent of all service calls. Generally, service can be provided in this time frame to areas located within 1.5 miles of a fire station (City of Pittsburg 2001, p. 11-14). The project site has been provided fire protection and emergency medical services by the CCCFPD for many years. In January 2011, the District completed construction of its Station 85 less than 1 mile south of the project site and relocated Station 84 closer to the project site in 2009. The completion of these facilities significantly improved response times to the project site, so response times to the project site are within the District's objective of five minutes.

The project will be required to incorporate the following preventative measures in accordance with the California Fire Code (CFC) to reduce the risk of fire and aid in fire suppression on the site (CCCFPD 2010):

All green waste, wood waste, and wood chip piles on the project site shall not exceed 20 feet in height, 80 feet in width, and 80 feet length (Project Description, CFC Section 1908.3).

Material-handling equipment (e.g., front loaders) shall be readily available for moving wood chips and hogged material (wood waste material produced from lumber production processes), wood fines, and raw product during firefighting operations (CFC Section 1908.9).

The owner or operator of the facility shall develop a plan for monitoring, controlling, and extinguishing spot fires. The plan shall be submitted to the CCCFPD for review and approval (CFC Section 1908.10).

An operational plan indicating procedures and schedules for the monitoring, inspection, and restricting of excessive internal temperatures in static piles shall be submitted to the fire code official for review and approval. Internal pile temperatures shall be monitored and recorded weekly. Records shall be kept on file at the facility and made available for inspection (CFC Section 1908.6).

Portable fire extinguishers with a minimum rating of 4A:60B:C shall be provided on all vehicles and equipment operating on piles and at all processing equipment (CFC Section 1908.8).

Three (3) sets of fire sprinkler plans for the new commercial recycling sort line and the new food waste sort line shall be submitted to the CCCFPD for review and approval prior to installation (CFC Section 903.2).

Three (3) sets of plans and specifications for the biomass gasification unit shall be submitted to the CCCFPD for review and approval prior to installation to ensure compliance with minimum requirements related to fire and life safety (CFC Section 903.2).

Three (3) sets of plans and specifications for the truck maintenance facility and yard shall be submitted to the CCCFPD for review and approval prior to installation to ensure compliance with minimum requirements related to fire and life safety (CFC Section 903.2).

Given the recent CCCFPD facility improvements, the existing requirements of the CFC, and consultation with CCCFPD staff, it is not anticipated that implementation of the proposed project would adversely affect the District's response times to the project site or other properties in its service area (Leach 2009). Furthermore, no new or expanded facilities would be needed to serve the project. Therefore, this impact is **less than significant**.

Mitigation Measures

None required.

Provide Inadequate Emergency Access

Impact 3.6.1.2 The project proposes modifications and expansion to the layout and operations of the existing facility that may result in inadequate access for emergency vehicles and personnel in the event of a fire or other emergency situation. This impact is **less than significant.**

Within the outdoor operations area of the site, waste materials are stored in large piles prior to processing (i.e., grinding) or transport off-site. If the wrong items are disposed together, the items can combust and can result in a fire in a garbage truck or on the transfer station floor. However, there is no indication that the facility expansion would alter the mix of refuse such that there would be an increase in the risk of fire. The proposed site plans for the outdoor operations areas and the proposed truck maintenance facility and yard (see **Figures 2.0-7** and **2.0-9**) include additional structures, modifications to the location and size of these waste material piles, and modifications to access and fire lanes. CCCFPD completed preliminary reviews of the proposed project and provided specific requirements for the project to receive district approval. These requirements, provided as **Appendix H**, include the following:

- Submit 3 sets of all project plans including site improvement plans (showing all existing and proposed hydrant locations and fire apparatus access), fire sprinkler plans, biomass gasification unit plans and specifications, and photo voltaic plans and specifications for CCCFPD review and approval prior to start of construction

- Provide minimum 20 foot width and 45 foot turning radius for all fire apparatus access roads between storage piles

- Provide minimum 20 foot wide, paved emergency apparatus access roadways with not less than 13 feet 6 inches of vertical clearance to within 150 feet of travel distance to all portions of the exterior walls of all proposed structures

- Where access roadways would be less than 28 feet in width, post signs or paint curbs red with the words “No Parking – Fire Lane”

- Where access roadways would be greater than 28 feet but less than 36 feet, post signs or paint curbs red restricting parking to only the side of the road that does not have hydrants.

- Fire apparatus access gates shall be a minimum 20 feet wide, slide horizontally or swing inward, be located a minimum of 30 feet from the street and be equipped with a Knox Company padlock.

- Restrict storage piles to 25 feet in height, 150 feet in width and 250 feet in length

- Readily provide material-handling equipment onsite for moving materials during fire-fighting operations

- Develop a CCCFPD-approved operations plan for monitoring, controlling, and extinguishing spot fires

- Develop a CCCFPD-approved operations plan for the routine monitoring, recording and controlling of internal storage pile temperatures
- Provide portable fire extinguishers with a minimum rating of 4A:60B:C on all vehicles and equipment operating on piles and at all processing equipment
- Provide an adequate and reliable water supply for fire protection with a minimum fire flow of 1,500 gallons per minute (GPM)
- Provide one fire hydrant of the East Bay type
- Install an approved automatic fire sprinkler system within the proposed truck maintenance facility and yard complying with the 2013 edition of National Fire Protection Association (NFPA) 13.
- Provide traffic signal pre-emption systems on any new or modified traffic signals installed with the project
- Obtain approval and necessary permits from CCCFPD prior to installation of flammable or combustible liquid storage tanks at the proposed truck maintenance facility and yard.

These CCCFPD requirements (Leach 2013; CCCFPD 2014) must be included in project plans to receive approval by CCCFPD and will be incorporated as conditions of project approval. Thus the project would comply with all applicable federal, state and local standards related to emergency access. Therefore, this impact is less than significant.

Mitigation Measures

None required.

3.6.1.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

Cumulative Setting

The cumulative setting or study area consists of the entire service area of the CCCFPD, which includes the cities of Antioch, Clayton, Concord, Lafayette, Martinez, Pittsburg, Pleasant Hill, and San Pablo as well as numerous unincorporated areas of the county. The reader is referred to **Table 3.0-1** for a list of approved, proposed, and reasonably foreseeable projects in the cumulative study area.

Cumulative Impacts and Mitigation Measures

Cumulative Impacts to Fire Protection Services

Impact 3.6.1.3 The project would contribute to cumulative demand for fire protection and emergency medical services. This impact is **less than cumulatively considerable.**

Implementation of approved, pending, and proposed development projects in the CCCFPD service area would result in additional calls for service and may necessitate the construction of new or expansion of existing District facilities and/or the acquisition of additional equipment and staff. However, as described in Impact 3.6.1.1 above, the proposed project consists of

improvements to and expansion of an existing facility that currently receives fire protection services from the CCCFPD. Furthermore, the project will be required to implement numerous fire prevention and suppression measures to reduce fire risks on the site. As such, the project is not anticipated to significantly increase demand for fire protection services or trigger the need for new or expanded facilities, equipment, or staff.

When future fire protection and emergency medical facilities are required, the location, size of facility, and potential environmental impacts resulting from the provision of new fire protection and emergency medical facilities and equipment would need to be determined. A project-level CEQA document would analyze the potential environmental impacts of a fire facility project. Such an analysis, along with any necessary mitigation measures, would occur once an application for a project is submitted to the appropriate agency. The physical impacts resulting from the construction of new fire protection and emergency medical related facilities are generally short-term, temporary air quality and noise impacts. Other adverse impacts (i.e., water quality, erosion, biological resources, etc.) may result, depending on site-specific conditions and proximity to waterways and other important resource areas. CCCFPD review of new development projects for adequate water supply and pressure, fire hydrants, access to structures by firefighting equipment and personnel, compliance with established fire codes, and on-site fire suppression systems would ensure that the cumulative impacts of development in the CCCFPD's service area are less than significant, and the project's fire protection impact is **less than cumulatively considerable**.

Mitigation Measures

None required.

3.6.2 WATER SUPPLY

3.6.2.1 EXISTING SETTING

Water Supply

The City of Pittsburg is the public water purveyor for the city, including the project site.

According to the City's 2010 Urban Water Management Plan, the City obtains approximately 85 percent of its raw water supply from the Contra Costa Water District (CCWD) through the US Bureau of Reclamation (USBR) Central Valley Project (CVP) pursuant to a contractual arrangement allowing the City to obtain such quantity of water as is necessary to meet its needs, subject to rationing restrictions in the event of drought or other extraordinary circumstances.

The CCWD has a contract with the USBR for 195,000 acre-feet per year of CVP water to serve its customers which, in addition to the City of Pittsburg, include the community of Bay Point, the cities of Antioch, Concord, and Martinez, and portions of the cities of Brentwood, Oakley, and Pleasant Hill. In March 2005, the CCWD renewed its water service contract with the USBR for a period of 40 years, through February 2045.

The City supplements this CCWD water with groundwater supplies drawn from two local municipal wells and a small amount of recycled water (City of Pittsburg 2005). Historical and projected future water supplies for the City are shown in **Table 3.6.2-1**.

TABLE 3.6.2-1
PAST, CURRENT, AND PROJECTED WATER SUPPLIES (AFY)

Water Supply Source	2000	2005	2010	2015	2020	2025	2030
Purchased from CCWD	9,190	11,552	7,815	9,248	10,078	10,973	11,937
City-produced Groundwater	1,336	1,000	1,061	1,500	1,500	1,500	1,500
Recycled Water[1]	0	70	459	465	465	479	498
TOTAL	10,526	12,552	8,876	10,748	11,578	12,473	13,437

Source: City of Pittsburg 2005, 2011

Notes:

1 – Recycled water not included in total

Water Demand and Use

In 2007, the City averaged 10.3 million gallons per day (mgd) of water use with a peak of 16.2 mgd in the summer (City of Pittsburg 2011). Average water demand in the city in 2010 was 122 gallons per capita per day (gpcpd). However, usage without additional water conservation measures is expected to average 170 gpcpd. **Table 3.6.2-2** provides past, current, and projected water use data for the period 1980 to 2030.

TABLE 3.6.2-2
PAST, CURRENT, AND PROJECTED WATER USE

Year	Population	Water Use		
		mg (annual)	AFY	gpcpd
1980	33,500	2,057	6,313	168
1985	39,800	2,413	7,405	166
1990	46,500	3,120	9,575	184
1995	51,500	3,185	9,774	169
2000	56,513	3,541	10,526	172
2005	62,171	3,322	11,061	147
2010	64,967	2,892	8,876	122
2015	70,680	3,502	10,748	136
2020	76,896	3,772	11,578	134
2025	83,658	4,064	12,473	133
2030	91,015	4,378	13,437	132

Source: City of Pittsburg 2011

Supply/Demand Comparison

The CCWD's future supply projections assume adequate availability of surface water sources delivered through their contract with the USBR along with other available sources and short-term purchases. The supply and demand forecasts presented in **Tables 3.6.2-1** and **3.6.2-2** indicate that the City does not anticipate supply deficits in normal years due to the stability of the raw water supply. The CCWD has indicated that current demands can be met under all supply conditions. However, starting in 2010, during the second and third year of a multiyear drought, short-term water purchases would most likely need to be reduced by five to 15 percent. The CCWD has further indicated that it believes the maximum amount of short-term conservation expected to be necessary under drought conditions would be 15 percent of demand.

Water Supply Reliability and Planned Water Supply Projects

Contra Costa Water District

In 2002, the CCWD prepared a Future Water Supply Study (FWSS) which included measures to ensure adequate water supplies to meet its wholesale municipal customers' projected demands. These measures included renewal of the CCWD's water service contract for CVP water, which has been completed; implementation of an expanded conservation program, which is ongoing; and water transfers to bridge the gap between projected demand and supplies. The CCWD has secured a long-term transfer agreement with the East Contra Costa Irrigation District to transfer surplus irrigation water. Currently, up to 9,700 acre-feet per year are available under the agreement. In the future, this agreement will provide up to 12,200 acre-feet per year.

The water supply reliability goal adopted by the CCWD's Board of Directors is to meet 100 percent of demand in normal years and a minimum of 85 percent of demand during a drought. Implementation of the FWSS would provide a minimum of 22,000 acre-feet of additional supply through water transfer agreements. A combination of short-term water purchases and drought demand management are planned to meet any remaining supply deficit (City of Pittsburg 2005).

City of Pittsburg

As described above, in average precipitation years, the City anticipates having sufficient water supplies to meet its customers' needs through 2030. In a second consecutive dry year, however, the City will probably need to enter into a Stage I water shortage response. A Stage I water shortage response is planned to address up to a 10 percent reduction of supply and includes a voluntary customer rationing program. In the third consecutive dry year, or in the event of a major system failure, the City may continue a Stage I water shortage response or move into a Stage II water shortage response. A Stage II water shortage response is planned to address up to a 20 percent reduction of supply and includes continuation of voluntary rationing, building permit restrictions, and water shortage pricing. In addition, the City's Water Conservation Ordinance includes prohibitions on various wasteful water uses such as lawn watering during midday hours, washing sidewalks and driveways with potable water, and allowing plumbing leaks to go uncorrected.

In addition to the City's water conservation efforts described above, the City also continually examines supply enhancement options, including additional water recycling, conjunctive use, water transfers, and additional imported water supplies through its participation in the East County Water Management Association and collaboration with its principal raw water suppliers.

The City is working with the Delta Diablo Sanitation District (DDSD) to further develop irrigation and industrial recycled water uses. The DDSD currently provides recycled water to the Delta Energy Center and the Los Medanos Energy Center, thus reducing demand for City water supplies. The DDSD also provides recycled wastewater to the City for park and landscaping irrigation purposes. In addition, the City is pursuing the construction of additional groundwater wells for which the City has commissioned a groundwater study and well site selection, design, and construction. The new wells will supplement the existing wells sites already in use by the City and allow the City to more fully identify and use the existing groundwater supply.

Infrastructure

Raw water is conveyed by the CCWD to the city through the Contra Costa Canal and is treated at the City's 32-mgd Water Treatment Plant (WTP). In addition to the WTP, the City's water system consists of two groundwater wells, eight distribution reservoirs, and five booster stations. The reservoirs serve four pressure zones and have a total capacity of 17 million gallons (mg) providing operational, emergency, and fire flow storage. In addition, the system consists of approximately 211 miles of water mains and includes 3,576 valves, 17,500 meters and service lines, and 1,300 fire hydrants.

3.6.2.2 REGULATORY FRAMEWORK

Federal

Safe Drinking Water Act

The Safe Drinking Water Act is the main federal law that ensures the quality of Americans' drinking water. The act authorizes the United States Environmental Protection Agency (USEPA) to set national health-based standards for drinking water, known as the National Primary Drinking Water Regulations, to protect against both naturally occurring and man-made contaminants that may be found in drinking water. The regulations set enforceable maximum contaminant levels for particular contaminants in drinking water and require ways to treat water to remove contaminants. Each standard also includes requirements for water systems to test for contaminants in the water to make sure standards are achieved. In addition to setting these standards, the USEPA provides guidance, assistance, and public information about drinking water, collects drinking water data, and oversees state drinking water programs (USEPA 2004). The USEPA oversees the states, localities, and water suppliers that implement the standards. The Safe Drinking Water Act applies to every public water system in the United States.

State

California Safe Drinking Water Act

The California Safe Drinking Water Act was passed to build on and strengthen the federal Safe Drinking Water Act. The act authorizes the California Department of Public Health to enforce both the federal and state acts and protect the public from contaminants in drinking water through regulation of public water systems (Scorecard 2012).

California Department of Public Health Drinking Water Program

The California Department of Public Health's (CDPH) Drinking Water Program is within the Division of Drinking Water and Environmental Management. The program regulates public drinking water systems and is responsible for the enforcement of the federal and California Safe Drinking Water

Acts and the regulatory oversight of 7,500 public water systems. The CDPH Field Office Branch staff performs field inspections, issues operating permits, reviews plans and specifications for new facilities, takes enforcement actions for noncompliance with laws and regulations, reviews water quality monitoring results, and supports and promotes water system security. In addition, Field Office Branch staff members are involved in funding infrastructure improvements, conducting source water assessments, evaluating projects utilizing recycled treated wastewater, and promoting and assisting public water systems in drought preparation and water conservation (CDPH 2012). The CDPH also establishes maximum contaminant levels (MCLs) that are at least as stringent as those developed by the USEPA, as required by the federal Safe Drinking Water Act. The CDPH lists any contaminants that may have any adverse health effects, based on expert opinion, and may occur in public water systems, including all the substances for which federal MCLs exist (Scorecard 2012). The CDPH works with the USEPA, the State Water Resources Control Board, Regional Water Quality Control Boards, and a wide variety of other parties interested in the protection of drinking water supplies (CDPH 2012).

Urban Water Management Planning Act and Amendments

The California Department of Water Resources (DWR) provides urban water management planning services to local and regional urban water suppliers. In 1983, the California Legislature enacted the Urban Water Management Planning Act (Water Code Sections 10610–10656). The act states that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet of water annually, should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The act requires that urban water suppliers develop water management plans to actively pursue the efficient use of available supplies. The act describes the contents of the urban water management plans as well as how urban water suppliers should adopt and implement the plans (DWR 2012). The adopted plan must be updated at least once every five years on or before December 31 in years ending in five and zero. An urban water supplier that does not prepare, adopt, and submit its urban water management plan to the DWR is ineligible to receive drought assistance from the State of California.

The CCWD's latest Urban Water Management Plan (UWMP) was adopted in 2010 and covers the entire CCWD service area. This includes the City of Pittsburg. The conclusions of the UWMP were utilized in the preparation of the CCWD's Future Water Study. Likewise, the City of Pittsburg prepared a UWMP in 2010, including consideration of existing and projected future growth in the city.

Senate Bill (SB) 610 and Assembly Bill 910

Local

City of Pittsburg General Plan

The General Plan serves as the overriding policy document for land use in the City of Pittsburg. The reader is referred to **Appendix F** for an analysis of the proposed project's consistency with General Plan policies related to water supply. While this DEIR discusses the project's consistency with the General Plan pursuant to State CEQA Guidelines Section 15125(d), the appropriate reviewing authority will ultimately make the determination of the project's consistency with the General Plan.

Pittsburg Municipal Code

Title 13 of the Pittsburg Municipal Code provides regulation of water supply and wastewater handling in the City of Pittsburg. Section 13.18 includes specific requirements and prohibitions toward the goal of conserving water in the city.

3.6.2.3 IMPACTS AND MITIGATION MEASURES

Standards of Significance

The impact analysis provided below is based on the CEQA Guidelines Appendix G thresholds of significance. The project would have a significant impact related to water supply if it would:

1) Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

2) Have insufficient water supplies available to serve the project from existing entitlements and resources and/or require new or expanded entitlements.

Methodology

Water use information was provided by the applicant and shared with utilities. A separate analysis of methods of extending recycled water to the site was provided by Carlson, Barbee & Gibson, Inc., Engineers (2011).

Project Impacts and Mitigation Measures

Adequate Water Supply (Standards of Significance 1 and 2)

Impact 3.6.2.1 Implementation of the proposed project would substantially increase the facility's water demands. However, the City and its wholesale provider would have sufficient water supplies available to meet the project's demand. This impact would be **less than significant**.

The City of Pittsburg currently treats and supplies domestic water to the existing facility, while water for fire suppression purposes is provided via a private water supply. Implementation of the proposed project would increase the facility's water demand from the current approximately 20,000 gallons per day (gpd) (22 acre-feet per year) to approximately 40,000 gpd (45 acre-feet per year). This increased water demand would be attributed to operation of the proposed biomass gasification unit and expanded operations and in the outdoor processing areas. Because the proposed truck maintenance facility and yard would be relocated from a property east of Loveridge Drive, it would result in no net increase in water demand.

The City's water treatment plant has a capacity of 32 mgd. The City currently averages a total water demand of approximately 11 mgd, with peak usage at approximately 17 mgd. The City projects that its total average daily water demand in 2030 would be approximately 17 mgd, which leaves a remaining treatment capacity of 15 mgd. As the proposed project would increase the City's total water demand by a relatively small 20,000 gpd, or approximately 0.02 mgd, it would not result in the need for a new water treatment plant or expansion or modification of the existing plant.

During the NOP process, the DDSD requested that the EIR evaluate the potential for the proposed project to use reclaimed water. Reclaimed water would best be utilized for dust suppression during project operations. The dust suppression demand for the project at full buildout is estimated to be 25,000 gpd (approximately 28 acre feet per year).

There are two potential sources of non-potable water within proximity of the project site. The first is the DDSD's recycled water system. The DDSD operates a recycled water system that supplies recycled water generated at its Wastewater Treatment Plant (WWTP) to various industrial sites, parks, and golf courses within their service area. The recycled water generated by the DDSD meets the California Department of Public Health's Title 22 regulations and is acceptable for all uses and human contact, except for drinking. The DDSD has indicated that the recycled water system has capacity to meet the proposed demand for the project site (CBG 2012). The DDSD recycled water system includes an 18-inch supply and 12-inch return pipelines in Pittsburg-Antioch Highway near the project site. Should the extension of the recycled water system become part of the proposed project, the lines would be located in existing public rights-of-way that are paved (CBG 2011). Thus, no significant environmental impacts would occur if service was extended.

The second potential source is the CCWD's raw water system. The CCWD operates raw water pipelines which convey raw water from the Contra Costa Canal to the industrial uses north of Pittsburg-Antioch Highway, including the project site. The CCWD raw water system includes an 18-inch pipeline, referred to as Lateral 14, which crosses to the north side of Kirker Creek just east of the Contra Costa Industrial Park (CCIP). The CCWD has indicated that the raw water system has capacity to meet the proposed demand for the project site (CBG 2012). Because there would be adequate treated and non-potable water to serve the project, this would be considered a **less than significant** impact.

Mitigation Measures

None required.

Cumulative Water Supply

Impact 3.6.2.2 The proposed project, in combination with other cumulative development, would increase demand for potable water. The project's contribution is **less than cumulatively considerable.**

The City anticipates having sufficient water supplies to meet its customers' needs through 2030. As shown in **Tables 3.6.2-1** and **3.6.2-2**, the projected demand would be met by a combination of water provided by the CCWD, City-produced groundwater, and recycled water, and recycled water and groundwater would be used to supplement CCWD supplies. The CCWD has indicated that current demands can be met under all supply conditions. However, starting in 2010, during the second and third year of a multiyear drought, short-term water purchases would most likely need to be reduced by 5 to 15 percent. The CCWD has further indicated that it believes the maximum amount of short-term conservation expected to be necessary under drought conditions would be 15 percent of demand. The City's water conservation efforts to achieve any reductions in dry years are described above. The City also continually examines supply enhancement options, including additional water recycling, conjunctive use, water transfers, and additional imported water supplies, through its participation in the East County Water Management Association and collaboration with its principal raw water suppliers. Therefore, based on the current projected demand and supply, there is adequate water to meet the cumulative demand. This would be considered a less than significant cumulative impact, and the project's contribution is **less than cumulatively considerable**.

Mitigation Measures

None required.

3.6.3 WASTEWATER SERVICE

3.6.3.1 EXISTING SETTING

The existing wastewater facilities serving the project site are privately owned and maintained. Wastewater flows from the site are currently conveyed to an existing pump station located on the west side of the on-site buildings, near the scale house. A 4-inch force main then conveys flows from the pump station south, parallel to the building, and then turns eastward, generally in alignment with the site's main access driveway to Loveridge Road. The force main then turns prior to Loveridge Road and continues Southward and connects to an existing four-inch force main within the 3.5 acre area to the south (former GWF Power Site). This four-inch force main conveys the flows across the Kirker Creek culverts and across the Loveridge Road/Pittsburg-Antioch Highway Intersection and connects to the existing DDSD truck main within Pittsburg-Antioch Highway. The DDSD trunk main conveys flows west to east and eventually discharges to the DDSD Wastewater Treatment Plant (CBG 2011, p. 1-2).

Existing Wastewater Storage Tanks

There are two 4,500-gallon wastewater storage tanks located on the north side of the Mt. Diablo Recycling Facility/Recycling Center and Transfer Station buildings. These tanks store wastewater collected from the floor of the transfer truck loading well. The wastewater consists of rainwater that flows into the truck well and liquids from the garbage material being processed. The wastewater is pumped from the floor into the tanks and stored. The wastewater accumulates and is then tested to confirm compliance with DDSD requirements. Once the DDSD confirms that the wastewater is acceptable to be treated at its wastewater treatment plant, a vacuum truck empties the tanks and transfers the wastewater directly to the DDSD treatment plant. This wastewater is not discharged into the on-site sanitary sewer system.

Existing On-Site Pump Station

A field assessment of the existing pump station located on the west side of the existing facility was conducted in November 2011 by Coleman Engineering (CBG 2011). This pump station was found to be in fair condition. The pipelines and pump were operable and functioning as needed to convey the typical wastewater flows generated by the current on-site operations. The existing pump has a pumping capacity of 75 gallons per minute (gpm). The pumps are controlled by a simple timer that is currently set to operate the pumps twice per day for duration sufficient to convey all wastewater from the site (CBG 2011, p. 1-2).

Existing On-Site Force Main

The existing force main within the project site and leaving the pump station described above is a 4-inch-diameter pipeline. There is one clean-out located just after the pump station as the force main turns southward. The site staff indicated that the system has backed up in the past due to the force main clogging with debris, such as rags or straps. Additional, clean outs have been since installed on the force main to reduce potential clogging and facilitate maintenance (CBG 2011, p. 1-2).

DDSD Wastewater Treatment Plant

The DDSD treatment plant is located north of State Route (SR) 4, just east of the City of Pittsburg city limits. Existing DDSD wastewater treatment facilities have a capacity of 16.5 mgd. In 2010, the DDSD treated an average of 13.4 mgd. The treated effluent is discharged to New York Slough and the Sacramento-San Joaquin Delta. The treated effluent is regulated under the National Pollutant Discharge Elimination System (NPDES) permit system, which is administered under the auspices of the USEPA.

The DDSD has adopted a District Master Plan that includes a phased treatment plant expansion to ultimately provide 24 mgd capacity (average dry weather flow) in order to accommodate anticipated growth in the City of Pittsburg, City of Antioch, and unincorporated Bay Point (City of Pittsburg 2001). The anticipated growth included in the District Master Plan is at a more intense development scale than is proposed by the City of Pittsburg General Plan (2001; see Section 4.1, Land Use and Planning).

3.6.3.2 REGULATORY FRAMEWORK

Federal

Clean Water Act

The Clean Water Act (CWA) is the primary federal legislation governing surface water quality protection. The statute employs a variety of regulatory and non-regulatory tools to sharply reduce pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. These tools are employed to achieve the broader goal of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters so that they can support the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water. Pollutants regulated under the CWA include "priority" pollutants, including various toxic pollutants; "conventional" pollutants, such as biochemical oxygen demand, total suspended solids, fecal coliform, oil and grease, and pH; and "non- conventional" pollutants, including any pollutant not identified as either conventional or priority. The CWA regulates both direct and indirect discharges (USEPA 2004).

Local

City of Pittsburg General Plan

The City adopted its current General Plan in 2001. **Appendix F** provides those General Plan policies relevant to wastewater and the proposed project as well as a preliminary evaluation of the project's consistency with these policies. While this DEIR discusses the project's consistency with the General Plan pursuant to CEQA Guidelines Section 15125(d), the appropriate reviewing authority will ultimately make the determination of the project's consistency with the General Plan.

3.6.3.2 IMPACTS AND MITIGATION MEASURES

Standards of Significance

The impact analysis provided below is based on the CEQA Guidelines Appendix G thresholds of significance. The project would have a significant impact related to wastewater if it would:

1) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

2) Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

3) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Methodology

The following analysis of potential wastewater service impacts is based on a technical memorandum prepared by Wood Rodgers, Inc. (2011), which provided the results of a detailed wastewater study for the project. Additional information is provided by a technical memorandum by Carlson, Barbee & Gibson, Inc. (2011). Both studies (provided as **Appendix I**) involved research, correspondence with adjacent property owners, and field visits to identify and describe the existing infrastructure currently serving the project site. The studies then provided a comparison of the capacities of this existing infrastructure to the flows anticipated to be generated under three different scenarios: Existing Flows, Proposed Flows with Biomass Discharge Added, and Master Planned Flows. Anticipated project flows were determined based on information provided by the project applicant.

Project Impacts and Mitigation Measures

Wastewater Treatment Impacts (Standard of Significance 1)

Impact 3.6.3.1 The proposed project could exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board. This impact is **less than significant.**

The proposed project will increase the wastewater flows from the project site from approximately 20,000 gpd to 61,200 gpd. The increase is associated with additional employee shifts and the incorporation of a Biomass Gasification Unit. The Biomass Gasification Unit is proposed to be implemented in two phases, each generating a wastewater flow of 20,000 gpd. As operations at the facility would be similar to that of the existing operations, the characteristics of the wastewater generated on site would not substantially differ from existing operations. If an industrial waste discharge permit is required for the project, the project applicant would be required to submit the application to the DDSD's industrial pretreatment department.

The proposed ultimate wastewater flows from the proposed project are estimated to be the sum of 40,000 gpd generated from the ultimate biomass unit and 1,200 gpd generated from 90 peak shift employees, totaling 41,200 gpd. Because the proposed truck maintenance facility and yard would be relocated from a property east of Loveridge Drive, it would result in no net increase in wastewater generation. The City of Pittsburg Wastewater Collection System Master Plan assigns a peaking factor of 2.11 based on flow monitoring to establish peak flows. Applying this peaking factor, the peak wastewater flows from the proposed MDRRP project are approximately 86,930 gpd (60.4 gpm).

The DDSD existing permit capacity is for 16.5 mgd with a 2010 daily treatment of 13.4 mgd, with a remaining capacity of 3.1 mgd. The proposed project would result in an increase of 41,200 gpd (0.0412 mgd), or approximately 1.3 percent of the available capacity. This would not exceed remaining treatment capacity and would not alter treatment operations. This impact is considered **less than significant**.

Mitigation Measures

None required.

Wastewater Infrastructure Impacts (Standard of Significance 2)

Impact 3.6.3.2 Implementation of the proposed project could require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. This impact is **less than significant.**

The Wood Rodgers (2011) technical review of the wastewater system recommended that additional evaluation be conducted to determine the capacity of the existing pump station and collection system. This additional evaluation was completed by Carlson, Barbee & Gibson, Inc. in December 2011 (see **Appendix I**). According to CBG (2011), the existing on-site pump station is in fair condition and has an existing pumping capacity of 75 gpm, which exceeds the proposed ultimate peak flow of 60.4 gpm. No improvements would be required to the existing on-site pump station in order to convey flows from the proposed MDRRP expansion (CBG 2011).

The existing collection system can adequately handle the projected wastewater without the need for substantial improvement. This impact is considered **less than significant**.

Mitigation Measures

None required.

Increased Demand for Wastewater Services (Standard of Significance 3)

Impact 3.6.3.3 Implementation of the proposed project could result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. This impact is **less than significant.**

As described previously, wastewater currently generated at the project site is primarily domestic waste from employee restrooms and kitchen facilities (CBG 2011). Rainwater that flows into the truck well and liquids from the garbage material being processed is also collected in storage tanks where it is tested to confirm compliance with DDSD requirements prior to transport via vacuum truck directly to the DDSD treatment plant. The proposed project would increase the volume of wastewater generated on the project site.

The DDSD has wastewater conveyance and treatment facilities planned and under construction to increase system capacity. The DDSD collects Capital Facility Capacity Charges to build capacity as it is consumed by new connections. Capacity is constructed by the DDSD as prescribed in its Conveyance and Treatment Plant Master Plans. The Master Plans use City planning data for communities in the DDSD service area. The proposed project is identified in the

City sewer collection system planning documents as part of sewer basin DP105. In the 2010 Master Plan, the parcels are within DDSD Master Plan Sewer Basin 2-8, Pittsburg Industrial South. Sewer Basin 2-8 has a contributing area of 363 acres and an existing average dry weather flow of 0.18 mgd, which will increase to 0.28 mgd at buildout (DDSD 2011). The comparatively small amount of projected wastewater from the facility of 0.04 mgd is within the planned wastewater for the basin. This impact is considered **less than significant**.

Mitigation Measures

None required.

Cumulative Demand for Wastewater Services

Impact 3.6.3.4 The proposed project, combined with other cumulative development, would increase demand for wastewater treatment facilities. This impact is less than significant, and the project's contribution would be **less than cumulatively considerable.**

Future growth in the City of Pittsburg would increase demand for wastewater treatment. Existing DDSD wastewater treatment facilities have a capacity of 16.5 mgd. In 2010, the DDSD treated an average of 13.4 mgd. The DDSD has adopted a District Master Plan that includes a phased treatment plant expansion to ultimately provide 24 mgd capacity (average dry weather flow) in order to accommodate anticipated growth in the City of Pittsburg, City of Antioch, and unincorporated Bay Point (City of Pittsburg 2001. The anticipated growth included in the District Master Plan is at a more intense development scale than is proposed by the City of Pittsburg General Plan. Consequently, the cumulative development in the city would be able to be accommodated by the expanded treatment plant. This would be a less than significant cumulative impact, and the project's contribution would be **less than cumulatively considerable**.

Mitigation Measures

None required.

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