This section summarizes the cumulative impacts associated with the proposed Mt. Diablo Resource Recovery Park project using the same environmental issue areas as Section 3.0 of this Draft Environmental Impact Report (Draft EIR; DEIR). Cumulative impacts are the result of combining the potential effects of the project with other existing, approved, proposed, and reasonably foreseeable projects in the region. The following discussion considers the cumulative impacts of the relevant environmental issue areas.

4.1 INTRODUCTION

The California Environmental Quality Act (CEQA) requires that an EIR contain an assessment of the cumulative impacts that could be associated with the proposed project. According to CEQA Guidelines Section 15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects (as defined by Section 15130). As defined in CEQA Guidelines Section 15355, a cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. A cumulative impact occurs from:

> . . . the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

In addition, CEQA Guidelines Section 15130(b) identifies that the following elements are necessary for an adequate cumulative analysis:

1) Either:

   (A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or

   (B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.

2) A definition of the geographic scope of the area affected by the cumulative effect and a reasonable explanation for the geographic limitation used;

3) A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available; and

4) A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.

Where a lead agency is examining a project with an incremental effect that is not cumulatively considerable, a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.

APPROACH TO THE CUMULATIVE IMPACT ANALYSIS

The analysis of cumulative impacts for each environmental factor can employ one of two methods to establish the effects of other past, current, and probable future projects. A lead agency may select a list or projects, including those outside the control of the agency, or alternatively, a summary of projects. These projects may be from an adopted general plan or related planning document, or from a prior environmental document that has been adopted or certified, and they may describe or evaluate regional or area-wide conditions contributing to the cumulative impact. The analysis provided in this Draft EIR utilizes both approaches.

Definition of Cumulative Setting

The cumulative setting conditions considered in this DEIR are based on the City of Pittsburg General Plan, which guides local land use in Pittsburg and provides a framework within which future development is expected to occur. The General Plan was analyzed for its guidance and requirements applicable to each section of this DEIR, and the assumptions contained within were incorporated into the cumulative analysis presented in the technical sections of this DEIR (Sections 3.1 through 3.8) as well as this section. Where applicable, the cumulative analysis considers as part of the cumulative setting a list of major development projects expected to occur in the vicinity of the proposed project. See Section 3.0, Assumptions, Table 3.0-1 and 3.0-2 for a listing of these projects and their expected buildout conditions. The cumulative setting considers background traffic volumes and patterns on regional and state highways (e.g., State Route [SR] 4), background air quality conditions, and other associated environmental conditions that occur within the region, both inside and outside the immediate vicinity of the project. In the case of services and utilities, the planning of those agencies that provide the services/utilities was considered and applied to the assumptions of the cumulative setting. For example, future water supply planning by the Contra Costa Water District (CCWD) was utilized in determining cumulative water supply need and expected customer load.

Each technical section of the Draft EIR includes a description of the geographic setting in the context of cumulative impacts based on the characteristics of the environmental issue under consideration as set forth in Section 15130(b) of the State CEQA Guidelines. For some issues, such as air quality, the area is large, often extending over city and county lines to other parts of the Bay Area.

4.2 CUMULATIVE IMPACTS ANALYSIS

This subsection provides a summary of overall cumulative impacts of the proposed expansion for the Mt. Diablo Resource Recovery Park, as required by Section 15130 of the CEQA Guidelines. The goal of such an exercise is twofold: first, to determine whether the overall long-term impacts of all such projects would be cumulatively significant; and second, to determine whether the proposed project itself would cause a cumulatively considerable (and thus significant) incremental contribution to any such cumulatively significant impacts. (See CEQA Guidelines Section 15130[a]–[b], Section 15355[b], Section 15064[h], Section 15065[c]; *Communities for a Better Environment v. California Resources* Agency [2002] 103 Cal.App.4th98, 120.) In other words, the required analysis intends to create a broad context in which to assess the proposed project's incremental contribution to anticipated cumulative development impacts, viewed on a geographic scale beyond the project site itself, and then to determine whether the project's

incremental contribution to any significant cumulative impacts from all projects is itself significant (i.e., cumulatively considerable in CEQA parlance).

Pursuant to Section 15130 of the CEQA Guidelines, "(t)he discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impacts to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact." The proposed project is considered to have a significant cumulative effect if:

1) The cumulative effects of development without the project are not significant and the project's additional impact is substantial enough, when added to the cumulative effects, to result in a significant impact; or

2) The cumulative effects of development without the project are already significant and the project contributes measurably to the effect. The term "measurably" is subject to interpretation. The standards used herein to determine measurability are that either the impact must be noticeable to a reasonable person, or must exceed an established threshold of significance.

Identified below is a brief summary of the cumulative impacts that would result from the implementation of the proposed project and future development in the vicinity. The following cumulative impacts of the proposed project are specifically identified in Sections 3.1 through 3.8 of this Draft EIR. The reader is referred to the various environmental issue areas of these sections for further details and analysis of the cumulative impacts.

AIR QUALITY

Cumulative Emissions in a Nonattainment Area

Cumulative development in the San Francisco Bay Area Air Basin, which is in nonattainment status for ozone (O_3), coarse particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$), would result in generation of O_3, PM_{10}, and $PM_{2.5}$ that would contribute to further exceedances in a nonattainment area. This would be considered a significant cumulative impact. The proposed project would contribute to these emissions; however, with implementation of mitigation measures MM 3.1.1 through MM 3.1.2 through C, the project's contribution would be reduced to below applicable significance thresholds. Because significance thresholds are designed to achieve attainment for these pollutants in the basin, reduction of the project contribution to below thresholds would ensure the project's contribution would be **less than cumulatively considerable.**

Cumulative Emissions Resulting in Risks or Hazards at Nearby Sensitive Receptors

The assessment of cumulative impacts included existing sources within 1,000 feet of the project site to identify the cumulative cancer risks and hazards at the maximally impacted receptor (MIR). Predicted $PM_{2.5}$ concentrations at the MIR would be 0.06 micrograms per cubic meter ($\mu g/m^3$) and would not exceed the cumulative significance threshold of 0.8 $\mu g/m^3$. Given that the predicted cumulative cancer risk, hazard index, and $PM_{2.5}$ concentrations would not exceed applicable thresholds, the cumulative impact would be considered **less than cumulatively considerable.**

Cumulative Increase of Odorous Emissions

There have been no confirmed odor complaints filed with the Bay Area Air Quality Management District for the existing Mt. Diablo Recycling Center and Transfer Station. One unconfirmed complaint was received by the BAAQMD on July 1, 2009, for which the BAAQMD was unable to confirm the source of the odor complaint. Therefore, the existing use is not considered a major source of odorous emissions in the project area. The proposed expansion would be subject to an Odor Impact Minimization Plan to ensure that the increased intake does not result in significant increases in odors that would adversely affect a substantial number of people. As a result, the cumulative impact related to localized concentrations of odors **would be considered less than cumulatively considerable.**

CLIMATE CHANGE AND ENERGY

Cumulative Greenhouse Gas Emissions That Could Potentially Conflict with the Goals of AB 32

The threshold used to determine whether the proposed project would contribute to the cumulative is 10,000 metric tons of carbon dioxide equivalents per year ($MTCO_2e$/year) for operational emissions from stationary sources and compliance with a Qualified GHG Reduction Strategy, or 1,100 $MTCO_2e$/year or 4.6 $MTCO_2e$/service population for operational emissions from non-stationary sources. For stationary sources, the operation of the proposed Biomass Gasification Unit would generate approximately 3,719 $MTCO_2e$/year, which is below the significance threshold of 10,000 $MTCO_2e$ for permitted stationary sources. For non-stationary sources, with the inclusion of amortized construction-generated GHG emissions, the overall net increase in GHG emissions from non-stationary sources would total 21,497 $MTCO_2e$/year. This exceeds the significance threshold of 1,100 $MTCO_2e$/year. However, the proposed project would result in a substantial increase in avoided emissions due to an increase of material recycled. Recycling operations occurring under current conditions at the Mt. Diablo Recycling Facility result in the avoidance of 14,627 metric tons of CO_2e annually (see page 3.2-19). With implementation of the proposed project, operations at the Mt. Diablo Resource Recovery Park would result in the avoidance of 154,692 metric tons of CO_2e annually by the year 2020 and 213,697 $MTCO_2e$ annually by the year 2035 (see Table3.2-2 in Section 3.2, Greenhouse Gas and Climate Change). Therefore, considering avoided emissions, the project **would not result in a cumulatively considerable contribution to greenhouse gas emissions.**

HAZARDS AND HAZARDOUS MATERIALS

Cumulative Exposure to Hazards and Hazardous Materials

There are proposed, planned, approved, or otherwise reasonably foreseeable projects in the vicinity of the project site that would involve hazardous materials, including the Pittsburg Medical Center, various trucking and automotive operations, manufacturing uses, chemical processing, and a household hazardous waste collection facility. These facilities could contribute to increased exposure to hazardous materials. However, there is a substantial body of regulations related to transport, use, and disposal of hazardous materials during both construction and operation designed to reduce potential exposure to hazardous materials. Compliance with these regulations pursuant to state, county, and local oversight is required, not optional, and compliance would be required of the proposed project and other projects in the project vicinity. Specifically, the operator would update the existing Hazardous Materials Business Plan and continue to report annually on material intake to the Contra Costa County Health Services Department, Hazardous Materials Division. Compliance with these regulations would ensure that the potential for exposure to hazardous materials **would be less than cumulatively considerable.**

HYDROLOGY AND WATER QUALITY

Cumulative Impacts to Water Quality

Cumulative development in the Kirker Creek watershed and Pittsburg Plain Groundwater Basin would increase the amount of pollutants that could have an effect on surface water and groundwater quality. The proposed project would include construction and operational changes within a small area (approximately 15,000 square feet) of the project site that has been previously disturbed. In addition, the project site is already equipped with water quality treatment facilities, including a landscaped stormwater treatment planter and a landscaped stormwater pretreatment bioswale, which are intended to remove pollutants and sediments from on-site drainage, protecting downstream waters. This would ensure that the project's contribution to increased pollutants in the watershed **would be less than cumulatively considerable.**

Cumulative Flooding Hazards

Proposed, approved, and reasonably foreseeable projects in the city could place nonresidential structures within a flood zone. However, all such development projects would be required to comply with Pittsburg Municipal Code Chapter 15.80.050, which provides specific standards for construction in special flood hazard areas. These standards include requirements related to anchoring of structures, use of flood-resistant construction materials and methods, and minimum base floor elevations and flood proofing. Compliance with these existing standards would minimize any potential for structure damage and safety risks as a result of flooding. This would ensure the impact **would be less than cumulatively considerable.**

LAND USE

Cumulative Land Use Compatibility Impact

Proposed and reasonably foreseeable projects in the cumulative study area may result in the need for zoning approvals. Design review approval and conditional use permits are discretionary activities by the City that would require review by the City, which would include a determination by the City for conformance with the General Plan and Zoning Ordinance, review of which would also consider potential incompatibility and nuisance issues. Therefore, the potential environmental effects associated with future projects would be evaluated as part of the review process for those projects. This impact **would be less than cumulatively considerable.**

PUBLIC SERVICES AND UTILITIES

Cumulative Impacts to Fire Protection Services

Implementation of approved, pending, and proposed development projects in the Contra Costa Fire Protection District (CCFPD) service area would result in additional calls for service and may necessitate the construction of new or expansion of existing district facilities. The CCFPD reviews 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 to ensure that demand for additional facilities would not be generated by the project and the cumulative impacts of development in the CCFPD's service area are less than significant. In addition, the proposed project consists of improvements to an existing facility that currently receives fire protection services from the CCFPD, and the project will be required to implement numerous fire prevention and suppression measures to

reduce fire risks on the site. Furthermore, the project will incorporate preventative measures in accordance with the California Fire Code to reduce the risk of fire and aid in fire suppression on the site. Therefore, the project's fire protection impact is **less than cumulatively considerable**.

Cumulative Water Supply

The City anticipates having sufficient water supplies to meet its customers' needs through 2030, with projected demand met by a combination of water provided by CCWD, City-produced groundwater, and recycled water. The City adopted water conservation efforts to achieve necessary reductions in dry years. 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 projected demand and supply, there is adequate water to meet the cumulative demand. This would be considered a **less than cumulatively considerable impact**.

Cumulative Demand for Wastewater Services

Future growth in the City of Pittsburg would increase demand for wastewater treatment. Existing Delta Diablo Sanitation District (DDSD) wastewater treatment facilities have a capacity of 16.5 million gallons per day (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. 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 is **less than cumulatively considerable.**

TRANSPORTATION AND CIRCULATION

Cumulative Impacts at Study Intersections

Operations at the Pittsburg-Antioch Highway/Loveridge Road intersection are projected to degrade from level of service (LOS) B to LOS high-D with the addition of project traffic during the AM peak hour under maximum permitted operating condition. Additionally, during the PM peak hour, the level of service is projected to degrade from LOS C to LOS E. Under typical operating conditions, the proposed project would have a less than significant impact on the operations at this intersection. After implementation of mitigation measure MM 3.7.2, the intersection would improve to LOS B and C during the AM and PM peak hours, respectively. However, widening along Loveridge Road to accommodate an additional northbound lane may be infeasible due to the railroad crossing and right-of-way constraints. Therefore, the operating conditions at this intersection remain significant and unavoidable, and the project's contribution to the impact under maximum permitted conditions would be **cumulatively considerable and significant and unavoidable.**

BIOLOGICAL RESOURCES

Cumulative Impacts on Special-Status Species and Sensitive Habitat

Future development in the surrounding area would contribute to cumulative impacts on special-status species and sensitive and critical habitats. Furthermore, increased development and disturbance created by human activities (e.g., fires, increased nighttime lighting, and reduced access to habitat and movement corridors) could result in direct mortality, habitat loss, and deterioration of habitat suitability. Therefore, cumulative impacts on special-status species and sensitive habitat are considered significant. Implementation of the proposed project may result in degradation of wildlife habitat through a variety of actions which, when combined with other habitat impacts occurring from development in the surrounding area; therefore, the project's contribution to that impact could be considerable**.**

The vegetation communities/habitats within the PSA represent only a small portion of the communities/habitats available for special-status species in the project vicinity. In addition, the proposed project would not result in a drastic change to the land use in the project vicinity. The PSA is surrounded on all sides by extensive development and would not contribute to further fragmentation of the landscape.

The ECCC HCP/NCCP encompasses 174,018 acres and includes all unincorporated Contra Costa County land east Concord. In addition, most of the cities in the region participate in the ECCC HCP/NCCP. The goal of the ECCC HCP/NCCP is to conserve covered species and their habitats, as well as maintain biological diversity and ecological processes while allowing for future economic growth in a rapidly urbanizing region.

Implementation of mitigation measures **MM 3.8.1a** through **MM 3.8.1e,** along with adherence to the standard conditions and requirements of the ECCC HCP/NCCP described previously will mitigate the project's contribution to impacts to special-status species and sensitive habitats, thereby reducing the proposed project's contribution to the cumulative impacts to **less than cumulatively considerable**.