SECTION 4: CUMULATIVE EFFECTS

4.1 - Introduction

CEQA Guidelines Section 15130 requires the consideration of cumulative impacts when a project's incremental effects are 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." In identifying projects that may contribute to cumulative impacts, the CEQA Guidelines allow the use of a list of past, present, and reasonably anticipated future projects, producing related or cumulative impacts, including those which are outside of the control of the lead agency.

In accordance with CEQA Guidelines Section 15130(b), ". . . the discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, the discussion need not provide as great [a level of] detail as is provided for the effects attributable to the project alone." The discussion should be guided by standards of practicality and reasonableness, and it should focus on the cumulative impact to which the identified other projects contribute rather than on the attributes of other projects that do not contribute to the cumulative impact.

The proposed project's cumulative impacts were considered in conjunction with the Plan Bay Area's 2040 buildout projections for Alameda and Santa Clara counties. These two counties were selected because the Warm Springs/South Fremont Community Plan area is wholly contained in Alameda County and is two miles from Santa Clara County. As such, the two counties are where the cumulative effects of buildout of the Community Plan would be most acutely observed. Table 4-1 provides a summary of 2040 population, employment, and housing projections for Alameda County and Santa Clara County.

Table 4-1: Alameda County/Santa Clara County 2040 Projections

Jurisdiction	Population	Employment	Housing Units
Alameda County	1,987,950	947,650	730,540
Santa Clara County	2,423,470	1,229,530	842,350
Total	**4,411,420**	**2,177,180**	**1,572,890**
Source: Association of Bay Area Governments, 2013.			

4.2 - Cumulative Impact Analysis

4.2.1 - Aesthetics, Light, and Glare

The analysis of cumulative aesthetics, light, and glare is focused on the City of Fremont. The City is characterized as a suburban community located within southern Alameda County. Fremont is mostly developed with urban uses, while significant portions of the Mission Hills and nearly all of the ridgelines have remained undeveloped. Mission Peak, Mt. Allison, and Monument Peak are

prominent visual features. Interstate 680 (I-680) is designated as a State Scenic Highway through Fremont.

Buildout of the Community Plan, in conjunction with development contemplated by the City of Fremont General Plan, would result in changes to scenic vistas, views from I-680, visual character, and light and glare. However, the incremental changes that would occur relative to the baseline conditions would not be cumulatively considerable because of the extent and nature of existing development in Fremont. Moreover, the Community Plan contains development standards to guide the shape and form of new development in a manner that would be compatible with surrounding land uses and the vision set forth in the City of Fremont General Plan. Additionally, development proposals would be reviewed by the City to ensure consistency with architectural standards, viewshed policies, and lighting requirements. Therefore, the proposed Community Plan, in conjunction with other future development projects, would not have cumulatively considerable impacts associated with aesthetics, light, and glare.

4.2.2 - Air Quality/Greenhouse Gases

The analysis of cumulative air quality and greenhouse gas emissions impacts is focused on the San Francisco Bay Area Air Basin (Air Basin), which is identical to the boundaries of the San Francisco Bay Area Air Quality Management District. The Air Basin consists of Napa, Marin, San Francisco, Contra Costa, Alameda, San Mateo, and Santa Clara counties, as well as the southern portion of Sonoma County and the western portion of Solano County.

Cumulative impact analysis is guided by buildout assumptions identified in regional population projections for the Air Basin. BAAQMD, which oversees air quality in the Air Basin, uses the Association of Bay Area Governments' population and vehicle miles traveled (VMT) growth projections as the basis for its air pollutant projections and reduction strategies contained in its Clean Air Plan (CAP). The proposed project would be consistent with the 2010 CAP after implementation of mitigation, and the projected increase in VMT would be less than the projected population increase. The project would not result in a cumulatively considerable net increase of criteria pollutants after implementation of mitigation. Therefore, the proposed project would be consistent with the 2010 Clean Air Plan and would not have a cumulatively considerable impact associated with inconsistency with regional air quality planning or a cumulative net increase in nonattainment pollutants. In addition, the proposed project would not result in an air quality violation or contribute substantially to an existing or project air quality violation, after incorporation of mitigation, nor would it expose sensitive receptors to substantial air pollutants after incorporation of mitigation.

Finally, the proposed project would be consistent with the City of Fremont's Climate Action Plan, and is considered a key component of the Climate Action Plan to help the City achieve its emission reduction goals, because of its infill, increased density, mixed-use, transit-oriented, pedestrian-oriented, and compact development design characteristics. In addition, the project is intended to provide infill development and improved pedestrian and transit orientation that would reduce overall growth in VMT generation in the City by increasing use of alternative modes of travel in the plan area. The project also meets many of the goals of the Bay Area-wide effort, "Focusing our

Vision" (FOCUS) program, guided by the Joint Policy Committee, which seeks to strengthen existing city centers, locate more housing near existing and future rail stations and quality bus lines, encourage more compact and walkable suburbs, and protect regional open space. Growth in the plan area would produce lower VMT per capita and per employee than would otherwise occur without the adoption of the Community Plan. Therefore, the project would not significantly contribute to a cumulative greenhouse gas impact.

4.2.3 - Biological Resources

The analysis of cumulative biological resources impacts is focused on the Warm Springs/South Fremont Community Plan area. The Community Plan area contains a mix of urban development and undeveloped land. Overall, the Community Plan area is considered an urban environment because it is surrounded by existing development and infrastructure on all sides.

The burrowing owl (a California Species of Special Concern) and nesting birds protected by the Migratory Bird Treaty Act (MTBA) are the only special-status species with the potential to occur within the Community Plan area. Development activities associated with the Community Plan, as well as other future development projects in the area, may impact burrowing owls and nesting birds. Standard pre-construction surveys and, if necessary, avoidance procedures would be required for any project with the potential to affect burrowing owl and nesting birds. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on biological resources. Because of the urban, built-up nature of the Warm Springs/South Fremont Community Plan area, there is no potential for any cumulatively considerable biological resource impacts.

4.2.4 - Cultural Resources

The analysis of cumulative cultural resources impacts is focused on the Warm Springs/South Fremont Community Plan area. The Community Plan area contains a mix of urban development and undeveloped land. Development activities associated with the proposed project, as well as other future development projects in the Community Plan area, would result in ground-disturbing activities that may encounter previously undiscovered cultural resources. Standard construction monitoring and, if necessary, avoidance or recovery procedures would be required for any project with the potential to adversely affect cultural resources. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts associated with cultural resources.

4.2.5 - Geology, Soils, and Seismicity

The analysis of cumulative geology, soils, and seismicity impacts is focused on the Warm Springs/South Fremont Community Plan area. The Community Plan area contains a mix of urban development and undeveloped land. There are no known geologic hazards within the Community Plan area (active faults, liquefaction zones, steep slopes, etc.). Development activities associated with the proposed project, as well as other future development projects in the Community Plan area, would be required to comply with building code standards for foundations and structures to ensure that buildings are adequately supported to withstand seismic events and abate any unstable

soil conditions. In addition, future development would be required to implement standard erosion control measures to ensure that ground-disturbing activities do not create offsite hazards. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts associated with geology, soils, and seismicity.

4.2.6 - Hazards and Hazardous Materials

The analysis of cumulative hazards and hazardous materials is focused on the Warm Springs/South Fremont Community Plan area. The Community Plan area contains a number of hazardous materials users. As the Community Plan uses buildout, there is the potential for sensitive land uses (i.e., residential) to occur on sites that formerly handled hazardous materials or be located next to hazardous materials users. Mitigation is proposed that would require development sites to be evaluated for hazardous materials as well as compatibility with any adjacent hazardous materials users. Other future development projects potentially impacted by these sites would also be required to remediate any potential hazardous materials. The proposed Community Plan, as well as future development projects, would be required to comply with all applicable hazardous materials handling and storage requirements to ensure that public health and safety are not at risk. Therefore, the proposed Community Plan, in conjunction with other future development projects, would not have cumulatively considerable impacts associated with hazards and hazardous materials.

4.2.7 - Hydrology and Water Quality

The analysis of cumulative hydrology and water quality impacts is focused on the Warm Springs/South Fremont Community Plan area. The Community Plan area contains a mix of urban development and undeveloped land. Development activities associated with the proposed Community Plan uses may impact water quality. Mitigation is proposed requiring the implementation of a Storm Water Pollution Prevention Plan and Best Management Practices that would minimize water quality impacts. Additionally, the Community Plan boundaries overlie the Niles Groundwater Subbasin and development activities have the potential to result in degradation of groundwater quality. Mitigation is proposed requiring development proposals that have the potential to impact groundwater to implement measures to protect this resource. Other future development projects in the Community Plan area would be required to implement similar mitigation. Therefore, the proposed Community Plan, in conjunction with other future development projects, would not have cumulatively considerable impacts associated with hydrology and water quality.

4.2.8 - Land Use

The analysis of cumulative land use impacts is focused on the City of Fremont. Most of the City contains urban development. The Warm Springs/South Fremont Community Plan area and its contemplated land uses were found to be consistent with the City of Fremont General Plan and Zoning Ordinance. Future development projects would be required to demonstrate consistency with General Plan policies and Zoning Ordinance and ensure that they do not create land use conflicts with adjacent properties. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable land use impacts.

4.2.9 - Noise

The analysis of cumulative noise impacts encompasses the ambient noise environment around the project site, which includes the Warm Springs/South Fremont Community Plan area, as well as roadways that would experience increases in traffic volumes from project-generated trips.

The cumulative noise impact analysis is guided by evaluating increases in ambient noise levels in the project vicinity relative to existing conditions. Construction noise would result in temporary increases in ambient noise levels, and mitigation is proposed that would require implementation of noise control measures during construction activities. Because construction would be temporary, ambient noise levels would not experience a permanent increase; therefore, no cumulatively considerable increase would occur. Vehicular trips generated by the proposed project would not cause ambient noise levels along any affected roadway segment to exceed acceptable noise standards for sensitive receptors under Existing Plus Project or 2035 conditions. Therefore, the proposed project would not have a cumulatively considerable impact related to increased ambient noise levels on nearby roadways. Residential uses proposed within the Community Plan area would be exposed to noise levels above acceptable noise standards. Mitigation is proposed that would require an acoustical study to be prepared for any residential development within the Community Plan area to verify that exterior and interior standards would be met. The proposed project may result in potentially significant construction and operational vibration to offsite and onsite sensitive receptors. Mitigation is proposed that would require a vibration analysis to identify project specific vibration attenuation measures. Offsite and onsite sensitive receptors would not be exposed to significant sources of vibration, and impacts would not be cumulatively considerable. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable noise impacts.

4.2.10 - Public Services and Recreation

The analysis of cumulative public services and recreation impacts is focused on the City of Fremont. The Community Plan uses and other future development projects would increase demands for fire protection, police protection, schools, libraries, parks, trails, and other recreational facilities. These projects would be required to provide development fees to finance capital improvements to the facilities to maintain acceptable service ratios and performance standards. The Community Plan would provide an elementary school site and public open space. The facilities would be sized to accommodate increased demands resulting from planned growth and, therefore, would be a cumulative benefit of the proposed project. As applicable, future development projects may also be required to dedicate parkland or provide in-lieu fees to mitigate for impacts to parks and recreational facilities. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on public services and recreation.

4.2.11 - Transportation

The analysis of cumulative transportation impacts is focused on the City of Fremont. The proposed Community Plan uses are anticipated to generate 51,620 daily trips; 6,074 AM peak-hour trips; and 6,060 PM peak-hour trips at buildout. The proposed project, in conjunction with other development projects, would increase traffic volumes at intersections, roadways, and freeways within Fremont

and Milpitas under Background Plus Project conditions and 2035 Cumulative Plus Project conditions. With the addition of trips generated by the proposed project, several intersections, roadways, and freeway facilities would operate at deficient levels of service. Mitigation is proposed that would require improvements to intersections or implementation of Transportation Demand Management Measures to reduce trip generation. However, many facilities are still projected to operate at unacceptable levels of service after mitigation. As such, impacts would be cumulatively considerable.

The proposed project and other future development projects would be required to provide appropriate transit, bicycle, and pedestrian facilities and, therefore, would ensure that cumulative impacts associated with alternative transportation would not be considerable.

4.2.12 - Utilities and Service Systems

Cumulative impacts to utilities and service systems are discussed separately by topic.

Potable Water

The analysis of cumulative potable water impacts is focused on the Alameda County Water District (ACWD) service area, which consists of the cities of Fremont, Newark, and Union City. The Community Plan uses are estimated to demand 1,400 acre-feet of potable water on an annual basis at buildout. Potable water demand from the Community Plan uses, in conjunction with other planned growth in the ACWD service area, is accounted for in the agency's Urban Water Management Plan (UWMP). The proposed Community Plan's water demand is accounted for in ACWD's long-term water supply planning through 2035. The UWMP identifies that ACWD may face water supply shortages during critically dry years. As described in the UWMP, ACWD would look to secure additional supplies through a Department of Water Resources drought water bank or similar water purchase/transfer program under these severe drought conditions. ACWD may also implement a drought contingency plan, which would include provisions for ACWD customers to cut back on water use, the magnitude of which would depend on the severity of the shortage. Because the project's demands are consistent with the UWMP demand forecast, development of the project would not result in increased shortages from those which are already factored into ACWD's planning. However, because ACWD anticipates potential future shortages under severe drought conditions, water supplies to the project may be cut back during these severe dry year conditions. The level of cutback to the project would be consistent with the rest of ACWD's customers, and would depend on the magnitude of the dry-year shortage facing the entire ACWD area.

ACWD recommended that the Community Plan uses be developed with water efficient plumbing fixtures and irrigation systems at both residential and non-residential developments. This recommendation is reflected in Mitigation Measure US-1. Other future development projects within the ACWD service area would be required to implement similar water conservation measures, which would further reduce the demand for potable water. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on potable water.

Wastewater

The analysis of cumulative wastewater impacts is focused on the Union Sanitary District (USD) service area, which consists of the cities of Fremont, Newark, and Union City. Wastewater generation by the Community Plan uses, as well as with other planned growth in the USD service area, is factored into the agency's long-range planning projections. The Community Plan is anticipated to increase sewer demand by approximately 260 percent relative to existing conditions. The Community Plan area currently contains a well-developed regional water, sewer, and storm network that, in general, has sufficient capacity to accommodate the proposed land uses and densities. New utility infrastructure improvements would be limited to extending facilities to the various development parcels within new streets or streets identified for improvement. In addition to new sewer infrastructure installed in conjunction with the street "gridding" of the area expansion, increased sewer flows may require upsizing of the pump station equalization basins to mitigate an increase in wet weather flows. No upgrades are anticipated for the treatment plant based on the Community Plan. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on wastewater.

Storm Drainage

The analysis of cumulative storm drainage impacts is focused on the Warm Springs/South Fremont Community Plan area. The existing Community Plan area is highly developed with a significant footprint of impervious surfaces (buildings, parking lots, and roadways). The proposed Community Plan would alter development types in the area, but is not anticipated to significantly increase the quantity of impervious surfaces. The Community Plan area currently contains a well-developed storm drain network that, in general, has sufficient capacity to accommodate the proposed land uses and densities. New utility infrastructure improvements would be limited to extending facilities to the various development parcels within new streets or streets identified for improvement.

Development within the Community Plan boundaries would be required to comply with the California Regional Water Quality Control Board, San Francisco Region's new regional municipal permit. A key element of the permit would require new development to employ Low Impact Development techniques to minimize and treat stormwater runoff. According to the Regional Water Quality Control Board, the goal of Low Impact Development is to "reduce runoff and mimic a site's predevelopment hydrology . . . by infiltrating, storing, detaining, evapotranspiring, or biotreating stormwater runoff close to its source." As such, each development within the Community Plan boundaries would be required to demonstrate that it adequately treats any site runoff to ensure the proper quality of the runoff leaving the site; does not increase the quantity, duration, or peak flow of runoff from a site; and employs proper construction management techniques through the construction process to ensure sediment and erosion control (addressed through the State's National Pollutant Discharge Elimination System requirements).

Accordingly, new development within the Community Plan boundaries would not increase flows substantially within the existing drainage system. As indicated by the Community Plan, the Community Plan area contains well-developed storm systems. New drainage infrastructure required by the Community Plan would be limited to what is required for new streets and roadways, and would be appropriately sized and modeled through the existing drainage system to ensure proper

sizing to handle stormwater flows. As such, the Community Plan would not result in an increased need for offsite stormwater drainage facilities and impacts would be less than significant.

Other future development projects would be required to demonstrate no net increase in storm drainage or provide drainage impoundment facilities that would detain runoff prior to discharge into the storm drain facilities. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on storm drainage.

Solid Waste

The analysis of cumulative solid waste impacts is focused on the City of Fremont. The Community Plan is anticipated to generate 43,637 cubic yards of construction waste over the life of the Community Plan and 48,932 cubic yards of operational waste on an annual basis. This waste would need to be disposed of in landfills in the San Francisco Bay Area region. Landfill capacity in the region is available to serve the proposed project, as well as other planned projects. Mitigation is proposed that would require development within the Community Plan area to implement waste diversion measures, including recycling, to reduce waste generation. Other future development projects would be required to implement similar measures. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on solid waste.

Energy

The analysis of cumulative energy impacts is focused on the Pacific Gas and Electric Company (PG&E) service area, which consists of all or portions of 47 counties in California. The proposed Community Plan uses are anticipated to demand 205 million kilowatt-hours of electricity and 852 million cubic feet of natural gas on an annual basis at buildout. PG&E has adequate existing energy supplies to meet existing demand and has access to other energy supplies necessary to meet future demand. In addition, the proposed project and future projects would be required to implement energy-efficient measures in accordance with the Title 24 standards to reduce energy demand. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on energy.