

## 5 CUMULATIVE IMPACTS

### 5.1 INTRODUCTION

This section provides an analysis of the cumulative impacts of the proposed Project and Alternative 2 considered together with other past, present, and probable future projects producing related impacts, as required by Section 15130 of the CEQA Guidelines. Alternatives to the proposed Project, including Alternative 2, are analyzed in Chapter 6, “Alternatives,” of this EIR.

Cumulative impacts are defined in CEQA Guidelines Section 15355 as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental 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 probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time” (CEQA Guidelines Section 15355[b]).

Consistent with CEQA Guidelines Section 15130(a), the discussion of cumulative impacts in this 2022 RDEIR focuses on significant and potentially significant cumulative impacts. CEQA Guidelines Section 15130(b), in part, provides the following:

The 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 impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

### 5.2 APPROACH

#### 5.2.1 CUMULATIVE PROJECTS CONSIDERED

The CEQA Guidelines Section 15130(b)(1) identifies two basic methods for establishing the cumulative environment in which a proposed project is to be considered:

- ▶ List method—A list of past, present, and probable future projects producing related or cumulative impacts.
- ▶ Plan method—A summary of projections contained in adopted general plans or related planning documents, or in a prior environmental document that has been adopted or certified, which described or evaluated regional or areawide conditions contributing to the cumulative impact.

The cumulative analysis for this EIR primarily uses the plan method. The relevant plans that inform the cumulative context with regard to planned development include the buildout of the City of Suisun City General Plan and City of Fairfield General Plan. More focused consideration of Project-specific cumulative projects also taken into consideration, as appropriate to inform the cumulative context in this EIR, include contemplation of development of the adjacent light industrial/warehousing area in the City of Fairfield and in the County that

would occur west of the proposed Project site, as well as consideration of the proposed Suisun Logistics Center in unincorporated Solano County within the eastern boundary of the City of Suisun City Sphere of Influence.

Throughout this chapter of the EIR, the aggregated past, present, and future projects that are embodied within the City of Suisun City General Plan and City of Fairfield General Plan, and that are used to assess the presence of cumulative impacts are referred to as “the related projects.”

## **5.2.2 GEOGRAPHIC CONTEXT**

Cumulative impacts may occur over different geographic areas depending upon the resource area being considered. The cumulative analyses for each topic area below describe the geographic scope (e.g. immediate Project vicinity, city, county, watershed, or air basin). The geographic area considered depends on the topic that is being analyzed. For example, in assessing aesthetic impacts, only development within the vicinity of the proposed Project Site would contribute to a cumulative visual effect because the Project Site is only visible within the vicinity of the site. In assessing air quality impacts, development within the air basin contributes to regional emissions of criteria pollutants, and basin-wide projections of emissions are the best tool for determining the cumulative effect.

## **5.3 CUMULATIVE IMPACT ANALYSIS**

The following sections contain a discussion of the cumulative effects that may occur from Project implementation, when considered in combination with the other past, present, and future projects as catalogued within relevant plans, for each of the environmental topic areas evaluated in detail in this EIR.

Project-level impacts that were determined to result in a conclusion of “no impact” would not contribute to cumulative impacts, and therefore are not the focus of the cumulative impact analysis presented below. This cumulative analysis conforms with Section 15130 of the CEQA Guidelines, which specifies that the “discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great a detail as is provided of the effects attributable to the project alone.”

### **5.3.1 AESTHETICS**

In order for a cumulatively significant impact related to adverse effects on scenic vistas or degradation of visual character or quality to occur, one or more of the related projects considered in this cumulative analysis must be located within the viewshed of the Project Site. There is only one related project within the viewshed of the Project Site: the 71 single-family residential units proposed in Suisun City on the north side of Cordelia Street at the site of the former Crystal Middle School, east of the UPRR, and adjacent to the east end of the Project’s new water supply line.

### **SCENIC VISTAS**

As described in the Community Character and Design Element of the City’s 2035 General Plan, Suisun City’s proximity to Suisun Marsh, the Vaca Mountains, Cement Hill, and the Coastal Range, provides for scenic views (City of Suisun City 2015a). The City’s 2035 General Plan EIR found that future development projected under the General Plan would involve land use changes that could permanently alter and block some views of the Suisun

Marsh, the Coastal Range, Cement Hill, the Potrero Hills, and the Vaca Mountains, and found this impact to be **cumulatively significant and unavoidable** (City of Suisun City 2015b).

In the vicinity of the Project Site, scenic vistas of the mountains to the west and north are available to public viewers in the form of motorists traveling on local streets including School Street, Morgan Street, and Cordelia Street. Scenic vistas of these mountains are available from the west edge of existing development in Suisun City immediately east of the Project Site, including the site of the proposed 71-unit residential project looking west. If the residential development on Cordelia Street were to include two-story buildings, scenic vistas to the west would be blocked from that area of Suisun City's existing development. Thus, the proposed 71-unit residential project considered in this cumulative analysis could result in significant and unavoidable impacts related to scenic vistas. Scenic vistas of these mountains are also available from the Project Site and SR 12 to motorists traveling on Cordelia Street, Pennsylvania Avenue, Cordelia Road, and SR 12 westbound (see photographs shown in key viewpoints in Section 4.1, "Aesthetics"). Continuation of existing open space/grazing land uses on 393 acres of the Project Site would preserve most of the existing views. Because the proposed buildings would be developed approximately 0.6 mile to the west, motorists traveling westbound on SR 12 would still have views of the Coast Ranges and the Howell Mountains. Furthermore, the site design at the Project Site would provide a line-of-sight corridor from north to south for motorists along Pennsylvania Avenue that would provide limited views of Cement Hill and the Vaca Mountains to the north in accordance with City General Plan Policies CCD-3.3 and CCD-6.3. However, under the proposed Project, scenic views to the north at the Project Site from Key Community Gateway 2 and from Viewpoint 10 along Cordelia Street would be blocked by proposed buildings and landscaping, and scenic views from Key Community Gateway 3 to the southwest would also be blocked. Scenic views of the Coast Ranges, Howell Mountains, Vaca Mountains, Cement Hill, and the Potrero Hills would still be available from all of these viewpoints at the Project Site looking in other directions. Because fewer buildings and landscaping would be installed under Alternative 2, an additional line-of-sight viewpoint corridor would be maintained from Key Community Gateway 3 looking southwest and southeast from Pennsylvania Avenue as compared to the proposed Project. The loss of scenic vistas from Key Community Gateway 2 would still occur under Alternative 2. Therefore, implementation of the proposed Project or Alternative 2 would represent a **cumulatively considerable contribution to the significant cumulative impact** related to scenic vistas. There are no feasible mitigation measures that would preserve scenic vistas from these locations while still allowing development to proceed under the proposed Project or Alternative 2. This cumulative impact is **significant and unavoidable**.

## **VISUAL CHARACTER**

The City's 2035 General Plan EIR found that future development contemplated under the General Plan would involve land use changes that would substantially change visual conditions because open viewsheds, including views of agricultural landscapes, would be replaced with urban development. Although the City determined that it will not consider urban development that is consistent with General Plan community design policies to represent a degradation of visual character for the purpose of future site-specific environmental impact analysis, the City determined as part of the 2035 General Plan EIR that the cumulative changes from past, present, and future urban development on visual character would be **cumulatively significant and unavoidable** (City of Suisun City 2015b).

Implementation of the proposed Project or Alternative 2 in conjunction with the related 71-unit potential residential project considered in this cumulative analysis would introduce new development within the Project

Site and the adjacent parcel to the east. However, the areas immediately west, north, and east of the Project Site are already urbanized with industrial, commercial, and residential development in the cities of Fairfield and Suisun City. Development of the proposed Project or Alternative 2 would visually change less than one-quarter of the Project Site (i.e., 93 or 51 acres, respectively, of the 487-acre Project Site). Construction activities would be short-term and temporary, are a common sight in the nearby developed areas of Fairfield and Suisun City (through which motorists are passing before they arrive at the Project Site), and would be scattered across the Project Site and the 71-unit residential project site considered in this cumulative analysis during each phase of construction. Operation of the proposed Project or Alternative 2 would change the visual character of a small portion of the existing open space along the urban fringe through the introduction of new buildings and associated parking areas and urban landscaping. The proposed 71-unit residential project would be visually consistent with existing surrounding residential development in Suisun City, and the proposed Project or Alternative 2 would be visually consistent with existing adjacent industrial development to the west and north. Most of the existing visual character of the Project Site would be preserved under both the proposed Project and Alternative 2. There are no outstanding examples of visual character at the Project Site, which consists of flat, rural (non-urbanized) land used for cattle grazing. As stated in Suisun City General Plan Policy CCD-6.4, the City will not consider urban development that is consistent with General Plan community design policies to represent a degradation of visual character for the purpose of environmental impact analysis. A Planned Unit Development (PUD) has been prepared for City review to establish the land use, zoning, development standards, and regulations for development of the Project Site consistent with General Plan community design policies (RMW Architecture et al. 2023). Development at the Project Site would be required by the City through the PUD process to demonstrate consistency with City General Plan community design policies, and would be required to comply with the City Municipal Code, Development Guidelines for Architecture and Site Planning, and Architectural Review requirements through review, revisions, and conditioning of the proposed Project and PUD, as well as Alternative 2. Therefore, the proposed Project or Alternative 2 would have a **less than cumulatively considerable contribution** to the significant cumulative impact associated with adverse changes in visual character or quality.

## **LIGHT AND GLARE**

The Project area is urbanized, and is not a “dark sky” area. The past, present, and reasonably foreseeable future development in the Project area already contributes substantially to nighttime lighting and skyglow effects. This is a **significant cumulative** impact.

The proposed Project and Alternative 2 would result in additional nighttime lighting and skyglow effects from the proposed development. Implementation of Mitigation Measure 4.1-3 would reduce the potentially significant impacts from nighttime lighting, glare, and skyglow effects associated with the proposed Project and Alternative 2 to the maximum extent feasible because an exterior lighting plan would be prepared for City review and approval and implemented. However, even with implementation of this mitigation measure, the proposed commercial and light industrial development on the Project Site and Alternative 2 site would contribute to regional nighttime skyglow effects. No additional feasible mitigation measures are available. Therefore, the proposed Project or Alternative 2 would result in a **cumulatively considerable contribution** to this significant and unavoidable cumulative impact related to nighttime skyglow effects.

### 5.3.2 AIR QUALITY

Regional air quality effects are inherently cumulative in nature. The nonattainment status of regional pollutants results from multiple sources in the air basin, both past and present. No single project would be sufficient in size to result in nonattainment of regional air quality standards. The potential for the Proposed project or Alternative 2 to result in significant criteria air pollutant emissions, and therefore a cumulatively considerable contribution to nonattainment criteria pollutants, is addressed under Impacts 4.2-1, 4.2-2, and 4.2-3 (refer to Section 4.2 of this EIR for details). Therefore, no separate cumulative criteria air pollutant analysis is required. The following cumulative impact discussion for air quality focuses on exposure to PM<sub>2.5</sub> and TACs.

Table 5-1 summarizes the Bay Area Air Quality Management District (BAAQMD) project-level cumulative health risk and hazard thresholds for cancer, non-cancer chronic, and annual averaged PM<sub>2.5</sub> concentrations (BAAQMD 2023). Cumulative impacts in excess of the thresholds identified in Table 5-1, would be a cumulatively considerable health risk contribution and would result in a significant cumulative impact.

**Table 5-1. BAAQMD Project-level Cumulative Health Risk and Hazard Thresholds**

Health Risk	Cumulative Threshold
Cancer Risk	100 in a million
Non-Cancer Chronic Risk	10.0 Hazard Index
Annual Average PM <sub>2.5</sub> Concentration	0.8 µg/m <sup>3</sup>

Source: BAAQMD 2023

As discussed in Section 5.3 of Appendix B of this EIR, a quantified analysis of cumulative impacts for annual PM<sub>2.5</sub> concentrations and excess cancer risk at the maximally exposed individual sensitive receptors was conducted. For this cumulative air quality analysis, the aggregation of health impacts from the proposed Project sources and existing sources were determined for resident, worker, student, and child sensitive receptors. Screening tools provided by the Bay Area Air Quality Management District were used to inform existing on-road mobile and railway sources. Since the project-level individual impact analysis identified the need for mitigation, the cumulative analysis incorporated that mitigation for the proposed Project.

Cumulative annual PM<sub>2.5</sub> concentrations are all well below (less than 35 percent) of the cumulative threshold at each of the proposed project's maximally exposed individual sensitive receptors (i.e., resident, worker, student, and child). Cumulative excess cancer risk is highest for the maximally exposed individual residential receptor of 19.42 in a million. For worker, student and child, the maximally exposed receptors were all below 10 in a million. Non-cancer chronic cumulative impacts are all well below the threshold for all sensitive receptors.

Based on this quantitative analysis of cumulative air quality impacts, the cumulative impact is **less than cumulatively considerable with mitigation**.

Odors are a localized impact. The type of facilities that are considered to result in other emissions such as those leading to objectionable odors include wastewater treatments plants, compost facilities, landfills, solid waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food processing facilities (BAAQMD 2017a). No such uses are present in the vicinity of the proposed Project site. Therefore, there is **no significant cumulative** impact related to odor.

### 5.3.3 BIOLOGICAL RESOURCES

The geographic scope for this analysis of cumulative impacts of the Project on biological resources includes the Suisun Marsh, the city of Suisun City, the city of Fairfield, and other nearby areas of Solano County.

As described for the cumulative scenario presented in the City of Suisun City 2035 General Plan Final Environmental Impact Report (City of Suisun City 2015b), past development and land conversion, including urban development, agriculture, roads, and water projects, has resulted in substantial regional losses of natural habitat, including vernal pool (i.e., valley floor grasslands), freshwater and saline emergent wetlands, riparian habitats, and natural waterways. These habitat losses have contributed to the decline of a number of special status plant and wildlife species that are dependent on these habitats and the overall effect of land use conversion on native plants, animals, and habitats has been substantially adverse. The combination of past, present, and reasonably foreseeable future development, including land use conversion described under the Solano County and City of Suisun City general plans, would result in a **significant cumulative** impact to valley floor grasslands, wetlands, and special status species associated with these habitats.

Although many future projects proposed in the County would be required to mitigate substantial impacts on biological resources, it may not be possible to mitigate all of these impacts in a manner that results in no net loss within the County and region because there is a finite amount of land and habitat available for compensation of unavoidable losses. Furthermore, as development progresses across the landscape, remaining habitats become more and more fragmented and vulnerable to habitat degradation, due to the indirect effects of surrounding development. Many transportation, commercial, residential, and industrial projects are proposed and underway for the Fairfield/Suisun City area. Recently completed projects within Fairfield and Suisun City have reduced the area's usefulness as a wildlife corridor and future projects would further reduce this function. Therefore, it can be expected that the net loss of native habitat for plants and wildlife, agricultural lands, and open space areas that support important biological resources in Solano County and the nearby region will continue. However, based on the adopted General Plans, development within Suisun City and Fairfield would focus development in existing developed areas while requiring mitigation, including preserving and maintaining large open habitat landscapes connected to surrounding natural habitats. Regardless, this is a **significant cumulative** impact.

Implementation of the proposed Project or Alternative 2 would result in potentially significant impacts from the loss and degradation of habitat for special-status plants, including Contra Costa goldfields; loss of habitat for special status wildlife, including Swainson's hawk and potentially for burrowing owl; loss of federally protected wetlands; loss of upland refugia for marsh dependent species; degradation of adjacent riparian habitat; disturbance to nest sites; and potential indirect effects from construction and operations on wildlife in adjacent areas. While many of these potential impacts would be avoided or mitigated at no net loss, as described in Section 4.4, "Biological Resources," particularly under Alternative 2 (e.g., loss of rare plant habitat, wetlands, nest sites), others would be reduced and minimized, leaving potential residual impacts from a net loss of total grassland cover in the region, including upland refugia, degradation of adjacent riparian habitat from further development encroachment, and temporary displacement or harassment of wildlife during construction. While these impacts from the proposed Project or Alternative 2 would contribute to historic and ongoing losses of biological resources in Solano County and the Suisun Marsh region, implementation of the mitigation measures described in Section 4.4, "Biological Resources," would result in a **less than cumulatively considerable contribution** to significant cumulative biological resources impacts under both the proposed Project and Alternative 2.

### 5.3.4 CULTURAL AND TRIBAL CULTURAL RESOURCES

The geographic scope for the analysis of cumulative effects of the Project on built environment historical resources and historic-era archaeological cultural resources is the Suisun Marsh, the city of Suisun City, the city of Fairfield, and other nearby areas of Solano County and for precontact archaeological resources and human remains, it is the ethnographic territory of the Patwin.

Any past, present, and reasonably foreseeable projects within the geographic scope of cumulative effects would be regulated by applicable federal, state, and local regulations; however, continued urbanization of the region in accordance with applicable land use plans, as well as those approved and proposed development projects, could result in the disturbance of cultural resources, which includes built environment historical resources, archaeological resources, and human remains. Therefore, the related projects considered in this cumulative analysis could result in a **significant cumulative impact** to cultural and tribal cultural resources.

As discussed in Section 4.4, “Cultural and Tribal Cultural Resources,” implementing the proposed Project or Alternative 2 would not result in impacts on built environment historical resources and therefore would not combine to create considerable changes in and cumulative effects on the built-environment historical resources. Therefore, there would be **no cumulative impacts** related to built environment historical resources from the proposed Project or Alternative 2, and this issue is not addressed further in this cumulative analysis.

Because all significant cultural resources are unique and non-renewable members of finite classes, all adverse effects or negative impacts erode a dwindling resource base. The loss of any one archaeological site, burial site, or built-environment historical resource has the potential to affect all others in a region since these resources are best understood in the context of the entirety of the cultural system of which they are a part. Due to the nature of built environment historical resources, archaeological cultural resources, and tribal cultural resources, adverse impacts are site-specific and need to be determined on a project-by-project basis. The Suisun City General Plan includes relevant policies and programs for projects that involve grading, excavation, and potentially other ground-disturbing activities which could disturb or damage as-yet-undiscovered archaeological cultural resources or human remains (Policy OSC-5.1, Policy OSC-5.2, and Program OSC-5.1). These policies and programs are implemented through mitigation measures imposed on the proposed Project in this EIR.

As discussed in Section 4.4, “Cultural and Tribal Cultural Resources,” ground disturbance in the Development Area, off-site infrastructure improvement areas, and areas proposed for the creation of mitigation wetlands within the proposed Managed Open Space Area could affect precontact or historic-era archaeological cultural resources, and this impact would be potentially significant. Implementation of Mitigation Measure 4.4-2 would reduce potentially significant impacts to cultural resources to less than significant. It is possible that unknown human remains could be discovered through ground-disturbing construction activities associated with the proposed Project and the impact would be potentially significant. Implementation of Mitigation Measure 4.4.3 would reduce potentially significant impacts to human remains to less than significant. Since the proposed Project or Alternative 2 impact to precontact or historic-era archaeological resources from implementation of the proposed Project or Alternative 2 would be reduced to less than significant, and since Alternative 2 involves a reduced level of earth disturbance, the proposed Project and Alternative 2 impacts to cultural and tribal cultural resources would be **less than cumulatively considerable**.

Cumulative projects in the ethnographic territory of the Patwin, which includes the Yocha Dehe Wintun Nation, would have the potential to result in a cumulative impact associated with the loss of tribal cultural resources through development activities. These projects would be regulated by applicable federal, state, and local regulations; however, the loss of tribal cultural resources on a regional level may not be adequately mitigated through preservation in place, particularly when preservation in place would make projects infeasible, and because the potential to discover previously unknown tribal cultural resources exists. Therefore, the cumulative destruction of significant tribal cultural resources from projects within the ethnographic territory of the Patwin may result in a **potentially significant cumulative impact** on tribal cultural resources. The Suisun City General Plan includes relevant policies and programs for projects that involve grading, excavation, and potentially other ground-disturbing activities which could disturb or damage as-yet-undiscovered human remains or tribal cultural resources (Program OSC-5.1). These policies and programs are implemented through mitigation measures imposed on the proposed Project in this EIR.

The City of Suisun contacted traditionally and culturally affiliated California Native American tribal representatives on May 14, 2021 that had requested notice of projects where AB 52 applies within the City. The City requested any information regarding tribal cultural resources (as defined by Public Resources Code 21074) within the Project Site so that this information can be incorporated into Project planning.

The only response was in a letter dated May 19, 2021 from the Yocha Dehe Wintun Nation's Cultural Resources Department stated that after review of the Project, they concluded it is within the aboriginal territories of the Yocha Dehe Wintun Nation, and that they have a cultural interest and authority in the proposed Development Area. Based on the information provided, the Tribe has concerns that the Project could impact known cultural resources, and highly recommend including cultural monitors during development and ground disturbance, including Cultural Sensitivity Training prior to all ground disturbance activities. Additionally, they requested that the City incorporate Yocha Dehe Wintun Nation's Treatment Protocol into the mitigation measures for the City's environmental document, provide the Tribe with a copy of the same, and continue to consult with the Tribe.

The California NAHC Sacred Lands File records search response on April 9, 2021, indicated that no Native American resources on file at the NAHC fall within the Project Site or the Alternative 2 site. However, during AB 52 consultation, the Yocha Dehe Wintun Nation's Cultural Resources Department stated that, after review of the proposed Project, they concluded it is within the aboriginal territories of the Yocha Dehe Wintun Nation, and that they have a cultural interest and authority in the proposed Project area (including the Alternative 2 site). It is possible that construction of the proposed Project or Alternative 2 could affect existing or previously undiscovered tribal cultural resources. With implementation of Mitigation Measures 4.4-2, 4.4-3, and 4.4-4a through 4.4-3d, which would be applicable to Alternative 2 in the same manner as the proposed Project, the contribution of the proposed Project or Alternative 2 to cumulative tribal cultural resources would be reduced through the identification, preservation, or culturally appropriate treatment of discovered resources. Thus, the contribution of the proposed Project or Alternative 2 to substantial effects related to archaeological and tribal cultural resources, including human remains, would be **less than cumulatively considerable**.

### **5.3.5 GEOLOGY AND SOILS, MINERALS, AND PALEONTOLOGICAL RESOURCES**

The geographic scope for the cumulative analysis of the geology and soils consists of the southwestern margin of the Sacramento Valley and the northeastern margin of the San Francisco Bay Area.



As discussed in detail in Section 4.5, “Geology, Soils, Minerals, and Paleontological Resources” and Chapter 6, “Alternatives,” the proposed Project and Alternative 2 would result in **no impact** to mineral or paleontological resources, and therefore these topics are not evaluated further in this cumulative analysis.

The Project region has historically been seismically active. The related projects considered in this cumulative analysis could be exposed to hazards from strong seismic ground shaking, as well as hazards from construction in unstable or expansive soils. However, the related projects would be subject to the design and engineering requirements of the California Building Standards Code, which include an analysis of seismic ground shaking, slope instability, liquefaction, and surface rupture attributable to faulting or lateral spreading, plus an evaluation of lateral pressures on basement and retaining walls, liquefaction and soil strength loss, and lateral movement or reduction in foundation soil-bearing capacity. The California Building Standards Code also regulates the analysis of expansive soils for foundations and grading work. The California Building Standards Code requires that measures to reduce damage from seismic effects and expansive/unstable soils be incorporated in structural design. Application of the California Building Standards Code to the related projects considered in this cumulative analysis would avoid a significant cumulative impact.

The new buildings proposed in the Development Area under both the proposed Project or Alternative 2 would also be subject to hazards from strong seismic ground shaking, and hazards from construction in unstable or expansive soils. A Geotechnical Engineering Report was prepared by Mid Pacific Engineering, Inc. (2020), which contains recommendations to address seismic and geologic hazards for the proposed Project in the Development Area. These same recommendations would be applicable to construction in the Development Area under Alternative 2. The recommendations in the geotechnical report are consistent with the California Building Standards Code, and would be incorporated as a part of the design of the proposed Project or Alternative 2 to reduce seismic and geologic hazards. Therefore, the proposed Project or Alternative 2 would result in **less than cumulatively considerable contribution** to cumulative impacts related to seismic and geologic hazards.

Implementation of the related projects considered in this cumulative analysis involve substantial earthmoving activities that would disturb soils and could result in soil erosion, if not properly controlled. All of the cumulative projects, including Caltrans projects, that disturb 1 acre or more are required by law to prepare a Storm Water Pollution Prevention Plan (SWPPP) and implement site-specific Best Management Practices (BMPs) that are specifically designed to prevent construction-related erosion. Caltrans projects that disturb less than 1 acre are required to prepare and implement a Water Pollution Control Program (WPCP). The related projects would also be required to obtain grading permits from the applicable jurisdictions (i.e., City of Suisun City, Solano County, or City of Fairfield), which require submittal of a soils report and a geotechnical report, along with detailed grading plans for review and approval, showing how erosion would be reduced. Permit conditions would be imposed by the applicable jurisdiction (such as straw wattles and watering of the soil surface during construction) to reduce potential erosion impacts. Furthermore, off-site improvements to SR 12 (or improvements to any other state highway that may be necessary for the other cumulative projects considered in this analysis) are under the jurisdiction of Caltrans and must be conducted in accordance with Caltrans’ Construction BMP Manual, which contains specific requirements to comply with SWRCB erosion and water quality permit terms and conditions. Application of these existing stormwater and erosion control requirements to the related projects considered in this cumulative analysis would avoid a significant cumulative impact.

Implementation of the proposed Project or Alternative 2 would result in earthmoving activities within the Development Area, as well as minor grading for installation of new wetlands in the Managed Open Space Area.

These earthmoving activities would disturb soils and could result in soil erosion, if not properly controlled. However, as described above for the related projects, the Project applicant for proposed Project or Alternative 2, and Caltrans for the off-site SR 12 improvements under the proposed Project, would be required to prepare a SWPPP and implement BMPs specifically designed to prevent construction-related erosion. In addition, a grading permit from the City, including plans demonstrating how erosion would be controlled, would be required for the proposed Project and Alternative 2. Therefore, the proposed Project or Alternative 2 would result in **less than cumulatively considerable contributions** to cumulative impacts related to soil erosion.

### 5.3.6 GREENHOUSE GAS EMISSIONS AND ENERGY

Greenhouse gases (GHGs) typically persist in the atmosphere for extensive periods time—long enough to be dispersed throughout the globe and result in long-term global impacts that contribute to climate change. As such, the proposed Project would not, by itself, result in climate change; however, cumulative emissions from many projects and plans all contribute to global GHG concentrations and the climate system. Accordingly, GHG emissions are inherently cumulative.

Sections 4.6 and 6.5.6, “Greenhouse Gas Emissions and Energy,” provide detailed analyses of this cumulative impact for the proposed Project and Alternative 2, respectively. As explained in more detail in Sections 4.6 and 6.5.6, because GHG emissions generated by the proposed Project or Alternative 2 would exceed the GHG efficiency threshold, implementation of the proposed Project or Alternative 2 could result in the generation of GHG emissions at a level that may have a significant impact on the environment and conflict with State GHG emission targets adopted for the purpose of reducing the emissions of GHGs. This impact is **potentially cumulatively considerable**.

Implementation of Mitigation Measures 4.6-1a through 1m would reduce the generation of long-term operational GHG emissions of the proposed Project or Alternative 2 as well as align the long-term operations of the proposed Project or Alternative 2 with the actions for new commercial development identified in the Final 2022 Scoping Plan update for carbon neutrality. Mitigation Measure 4.-1n further reduces the proposed Project’s impacts related to the generation of GHG emissions, as it requires the purchase and retirement of GHG emissions credits based on protocols approved by ARB, consistent with Section 95972 of Title 17 of the California Code of Regulations. Mitigation Measure 4.6-also requires the Project applicant to provide documentation demonstrating that the mitigation credits are real, additional, quantifiable, verifiable, enforceable, permanent, and consistent with the standards set forth in Health and Safety Code Section 38562, subdivisions (d)(1) and (d)(2). Mitigation Measure 4.6-1n would ensure that the Project’s GHG emissions efficiency would be consistent with that of the State SB 32 regulatory GHG emissions reduction target for 2030 and with the State AB 1279 regulatory GHG emissions reduction target for 2045 over the long-term operations of the Project. Therefore, with implementation of Mitigation Measures 4.6-1a through 1n, the generation of GHG emissions associated with the proposed Project would not result in a substantial contribution to the significant impact of climate change or conflict with an applicable plan, policy, or regulation adopted for the purposes of reduction GHG emissions. However, the City cannot guarantee the availability of emissions credits meeting the standards detailed in Mitigation Measures 4.6-1n presented in Section 4.6 of this EIR. Therefore, the proposed Project or Alternative 2 would result in a substantial contribution to the significant impact of climate change. There is no additional feasible mitigation. This impact is **cumulatively considerable and unavoidable**.

Energy efficiency or the lack of energy efficiency is not itself an environmental impact, though it could potentially be an indicator of an environmental effect. All adverse environmental effects related to the proposed Project's energy demand are evaluated throughout the environmental topic-specific sections of this EIR and this chapter.

Solano County and the cities within the county implement general plans that include goals and policies to reduce energy demands through the use design features, building materials, and building practices; encourage the use of renewable energy sources; promote land uses and patterns that would not cause wasteful, inefficient, and unnecessary consumption of energy; and ensure adequate electricity and natural gas and related distribution systems are available to meet energy demands. Developments within other parts of the region, as with the City, are required to implement Building Energy Efficiency Standards (Title 24 of the California Code of Regulations) and other applicable regulations. Therefore, there is **no significant cumulative impact** related to land uses and patterns that cause wasteful, inefficient, and unnecessary consumption of energy.

### **5.3.7 HAZARDS, HAZARDOUS MATERIALS, AND WILDFIRE**

The geographic scope for this cumulative analysis related to hazards, hazardous materials, and wildfire consists of the Project Site, Alternative 2 Site, and the local surrounding area.

As discussed in detail in Section 4.7, "Hazards, Hazardous Materials, and Wildfire," there would be **no impact** related to wildfire attributable to the proposed Project and for the same reasons articulated in Section 4.7 of this EIR, there would be no impact attributable to Alternative 2. Therefore, this topic is not evaluated further in this cumulative analysis.

The related projects considered in this cumulative analysis would involve routine transport use and disposal of hazardous materials, the potential for accidental spills of hazardous materials, and airport safety hazards for public-use airports. However, the projects considered in the cumulative analysis are site-specific and therefore would not combine to create cumulatively significant impacts in and of themselves. Although the proposed Project or Alternative 2 would result in an increase in routine use, transportation, and disposal of hazardous materials, as well as public airport hazards, existing federal, State, and local regulations create and enforce standards for these activities regardless of the amount or scale of use and therefore **no significant cumulative impact** would occur.

The related projects considered in this cumulative analysis could result in construction within a Cortese-listed site or other known hazardous materials site. However, in those cases, environmental site assessments that are specific to each project are required, results would be reported to the Solano County Department of Environmental Health Services, and coordination with the SWRCB and/or DTSC would occur prior to the start of construction activities as required by state and local laws and regulations. Federal, State, and local regulations create and enforce standards for activities at known hazardous materials sites regardless of the amount or scale of use, and therefore the related projects would result in no cumulative impact. Although the proposed Project or Alternative 2 would result in construction within the area of potential effects from off-site known hazardous materials, the appropriate on-site hazardous materials reports have been prepared, which detail the results of soil and groundwater sampling. These reports demonstrated that the proposed Project would not expose new construction workers, employees, or the environment to existing off-site hazardous materials. Therefore, the proposed Project or Alternative 2 would **not result in a cumulatively considerable contribution** to this cumulative impact.

The related projects considered in this cumulative analysis could result in construction along State highways regulated by Caltrans, which has formal procedures that are followed to reduce human health and ecological risks from the handling of disposal of hazardous materials and the reuse of soils contaminated with aerially-deposited lead. Earthmoving activities for improvements associated with the related projects could result in human health and ecological risks from exposure to known hazardous materials (e.g., underground pipelines containing fuel, persistent agricultural chemicals in soil, etc.). However, in those cases, environmental site assessments that are specific to each project are required, results would be reported to the Solano County Department of Environmental Health Services, and coordination with the SWRCB and/or DTSC would occur prior to the start of construction activities as required by state and local laws and regulations. Federal, State, and local regulations create and enforce standards for activities at known hazardous materials sites regardless of the amount or scale of use, and therefore the related projects would result in no cumulative impact. The proposed Project or Alternative 2 could result in human health and ecological risks from exposure to known hazardous materials (e.g., underground pipelines containing fuel, and metals/herbicide exposure along railroad tracks) that are present in the Project area during construction activities. However, implementing Mitigation Measures 4.9-3a and 4.9-3b would reduce the impacts of hazards associated with improvements under the proposed Project or Alternative 2 to a less-than-significant level. Hazardous materials impacts would be site-specific. Implementation of the proposed Project or Alternative 2 in conjunction with development of the related projects would not present a public health and safety hazard to people or the environment, and therefore the proposed Project or Alternative 2 would result in **no significant cumulative impact**.

Many of the related projects considered in this cumulative analysis would result in roadway improvements that could result in temporary lane closures, increased truck traffic, and other roadway effects that could slow or stop emergency vehicles, temporarily increasing response times and impeding existing services. Therefore, the related projects would result in a significant impact. Construction of the proposed Project or Alternative 2 would result in the need for off-site roadway improvements that could also result in short-term lane closures and increased slow-moving construction truck traffic that could temporarily reduce emergency response times. Implementing Mitigation Measure 4.9-5 would ensure that the roadway work associated with the proposed Project or Alternative 2 does not increase emergency response times or impede existing emergency services. Furthermore, none of the related projects would involve roadway work at the same locations as the proposed Project or Alternative 2. Implementation of the proposed Project or Alternative 2 (with mitigation measures incorporated) in conjunction with development of the related projects would not present a hazard related to emergency vehicle response times or access, and therefore the proposed Project or Alternative 2 would be **less than cumulatively considerable with mitigation**.

### **5.3.8 HYDROLOGY AND WATER QUALITY**

The geographic scope for this cumulative analysis related to hydrology and water quality consists of the San Francisco Bay hydrologic region.

#### **Construction-Related Degradation of Water Quality or Interference with Implementation of the Basin Plan**

Water quality in the Project region is under the jurisdiction of the San Francisco Bay RWQCB, which is charged with protecting beneficial uses of surface water and groundwater as identified in the *Water Quality Control Plan for the San Francisco Bay Basin* (Basin Plan) (San Francisco Bay RWQCB 2023). Construction activities associated with the projects considered in this cumulative analysis would create the potential for soil erosion and

sedimentation of drainage systems, both within and downstream of each project site and any associated off-site improvement areas. The construction processes may also result in accidental release of pollutants to surface waters, along with groundwater. Soil erosion and accidental spills of hazardous materials could result in downstream sedimentation and degradation of water quality. However, as discussed in detail in Subsection 4.10.2, “Regulatory Framework,” the related projects considered in this cumulative analysis would be required by law to prepare and implement a SWPPP as required by the SWRCB’s Construction General Permit with appropriate BMPs (such as source control, revegetation, and erosion control) at each project site and any associated off-site improvement areas, and to prepare grading plans and implement City of Suisun City or City of Fairfield permit terms, to maintain surface and groundwater quality conditions in adjacent receiving waters. Projects that involve improvements within Caltrans rights-of-way must comply with the Caltrans Construction NPDES Permit and implement the requirements of the Caltrans Construction Site BMP Manual (Caltrans 2017). Therefore, the related projects considered in this cumulative analysis would have no significant cumulative impact.

The proposed Project or Alternative 2 would also create the potential for soil erosion and sedimentation of drainage systems, both within and downstream of each Project Site and the associated off-site improvement areas. The construction processes may also result in accidental release of pollutants to surface waters (such as Ledgewood Creek and Pennsylvania Avenue Creek), along with groundwater. However, the proposed Project or Alternative 2 would also be required to adhere to the same applicable requirements designed to prevent water quality degradation including SWPPPs with BMPs, along with City grading permit terms, as discussed above. Therefore, temporary, short-term construction of the proposed Project or Alternative 2 would result in **less than cumulatively considerable contributions** to cumulative impacts from degradation of water quality or interference with implementation of the Basin Plan.

### **Operational Degradation of Water Quality or Interference with Implementation of the Basin Plan**

The related projects considered in this cumulative analysis would change the long-term potential for contaminant discharges because new impervious surfaces would be developed, and thus there would be a potential for the cumulative projects to cause or contribute to increased long-term discharges of urban contaminants (e.g., oil and grease, fuel, trash, pesticides, fertilizers). However, all project applicants are required to comply with the Solano County Regional MS4 Permit, which regulates operational water quality. Projects that involve improvements within Caltrans rights-of-way must comply with the Caltrans Operational NPDES Permit and the Caltrans PPDG Handbook (Caltrans 2019). All of the projects considered in this cumulative analysis must incorporate site-specific design and treatment measures that would be implemented to reduce post-construction runoff and control urban runoff pollution in compliance with the MS4 permit (or the Caltrans Operational NPDES Permit for Caltrans work) through the incorporation of BMPs, LID, and hydromodification management techniques. This includes the requirement to treat stormwater runoff through evapotranspiration, infiltration, stormwater harvesting and reuse, or biotreatment. Therefore, the related projects considered in this cumulative analysis would have no significant cumulative impact.

The proposed Project or Alternative 2 would result in new impervious surfaces from buildings, roads, and parking areas within the Development Area. Therefore the proposed Project or Alternative could cause or contribute to increased long-term discharges of urban contaminants such as oil and grease, fuel, trash, pesticides, and fertilizers. A Drainage Master Plan for the proposed Project has been prepared, which demonstrates incorporation of stormwater design and treatment measures for the proposed Development Area as required by the Fairfield-Suisun Urban Runoff Management Program (FSURMP) *Stormwater C.3 Guidebook* (FSURMP 2012) per the

Solano County MS4 permit. The locations and sizes of detention basins and LID features for Alternative 2 have also been developed consistent with City and FSURMP standards. Therefore, the proposed Project or Alternative 2 would result in a **less than cumulatively considerable contribution** to cumulative impacts from operational degradation of water quality or interference with implementation of the Basin Plan.

### **Exceedance of Drainage Systems Resulting in Hydromodification or Flooding**

Potential changes to the hydrologic and geomorphic processes in a watershed as a result of impervious surfaces and exceedance of drainage infrastructure capacity from urbanization include increased runoff volumes and dry weather flows, increased frequency and number of stormwater runoff events, increased long-term cumulative duration of flows, as well as increased peak flows. Exceedance of drainage infrastructure capacity results in hydromodification, which intensifies the erosion and sediment transport process, and often leads to changes in stream channel geometry, and streambed and streambank properties, which can result in degradation and loss of riparian habitat, and downgradient sediment deposition. In addition, operational stormwater discharges, if not properly detained, could exceed drainage system capacity resulting in flooding. However, all of the related projects considered in this cumulative analysis must prepare drainage plans in compliance with the FSURMP to protect and improve stormwater quality. The FSURMP requires that measures for long-term BMPs that protect water quality and control runoff flow be incorporated into new development and substantial redevelopment projects. All projects are required to design and implement water quality and runoff controls per the FSURMP's *Stormwater C.3 Guidebook* (FSURMP 2012). Drainage Master Plans for all of the projects considered in this cumulative analysis must include hydraulic, floodplain, hydrologic, and water quality analyses for each site-specific proposed development. Projects that involve improvements within Caltrans rights-of-way must comply with the Caltrans Operational NPDES Permit (SWRCB 2022) and implement the operational stormwater controls specified in the Caltrans PPDG Handbook (Caltrans 2019). Stormwater modeling results contained in plans must demonstrate that the projects as designed include appropriate stormwater runoff design features, properly sized stormwater drainage features, and appropriate stormwater quality treatment features so that the new impervious surfaces would not increase peak discharge rate of stormwater runoff and would not result in erosion, sedimentation, and on-site or downstream flooding. Therefore, implementation of the related projects considered in this cumulative analysis would avoid a significant cumulative impact.

A Drainage Master Plan has been prepared for the proposed Project (Morton Pitalo 2021). The locations and sizes of detention basins and LID features for Alternative 2 have also been developed based on City and FSURMP requirements. Drainage from proposed building roofs and parking lots would be routed into bioretention facilities for infiltration and treatment prior to discharge to the on-site detention basins. The bottom of the on-site detention basins would also be constructed as a bioretention facility. LID features may include disconnected roof drains and disconnected pavement. The proposed on-site detention basin volumes are based on the 100-year, 24-hour storm event with outflows restricted to 95 percent of pre-development flows or less (as required by the City). The Drainage Master Plan demonstrates incorporation of stormwater design and treatment measures for the proposed Development Area as required by the FSURMP *Stormwater C.3 Guidebook* (FSURMP 2012). Furthermore, a draft Stormwater Control Plan, that would be finalized and approved by the City, has been prepared for the proposed Project to control operational stormwater runoff and quality. A similar Stormwater Control Plan would be prepared for Alternative 2, as required by the City. Therefore, the proposed Project or Alternative 2 would result in a **less than cumulatively considerable contribution** to cumulative impacts associated with exceedance of stormwater drainage systems resulting in hydromodification and flooding.

## **Impedance or Redirection of Flood Flows and Risk Release of Pollutants from Inundation**

All of the cumulative projects considered in this analysis that would be located within Federal Emergency Management Agency (FEMA) 100-year floodplains require compliance with the City of Suisun City or City of Fairfield Flood Damage Prevention Ordinance. These ordinances require individual project applicants to apply for a development permit for construction in FEMA flood zones, with approval by the city's floodplain administrator. The permit application must include plans showing elevations of proposed structures and the elevations of areas proposed for materials and equipment storage; proposed floodproofing; and include certification from a registered civil engineer or architect that the floodproofed buildings would meet the city's floodproofing criteria. In addition, adequate drainage paths must be provided around structures on slopes to guide floodwaters around and away from proposed structures. The site-specific permits each contain terms and conditions that are designed to reduce flood damage at each project site. In Suisun City, the permit application must include plans illustrating the location(s) that are designated for temporary construction-related storage of materials and equipment, which the city's floodplain administrator must review and approve. The floodplain administrator may require the construction of temporary berms or dikes around the construction materials/equipment storage areas, to ensure sufficient protection from flood flows, if warranted. The related projects considered in this cumulative analysis are required to obtain a permit from the floodplain administrator and prepare plans demonstrating compliance with each city's flood damage prevention ordinance before building permits would be issued. Therefore, implementation of the related projects considered in this cumulative analysis would avoid any significant cumulative impact.

The proposed Development Area under both the proposed Project and Alternative 2 would be situated within a FEMA 100-year floodplain. However, the proposed Project or Alternative 2 would be required to comply with City of Suisun City Flood Damage Prevention Ordinance. As described above, this ordinance requires the Project applicant to include plans showing elevations of proposed structures and the elevations of areas proposed for materials and equipment storage; proposed floodproofing; and include certification from a registered civil engineer or architect that the floodproofed buildings would meet the city's floodproofing criteria. In addition, adequate drainage paths must be provided around structures on slopes to guide floodwaters around and away from proposed structures. The site-specific permit from the City for floodplain development would contain terms and conditions that are designed to reduce flood damage. Therefore, the proposed Project or Alternative 2 would result in result in a **less than cumulatively considerable contribution** to cumulative impacts associated with impedance or redirection of flood flows and risk of inundation from temporary storage of materials and/or equipment in a flood zone.

## **Substantial Interference with Groundwater Recharge or Impede Implementation of Groundwater Sustainability Plans**

Currently, the Suisun–Fairfield Valley Groundwater Basin is considered to have stable groundwater levels. Deep percolation of applied surface water from irrigated lands and seepage from SID canals and drains provide beneficial recharge to the underlying aquifers. On an annual basis, the total average recharge from seepage, deep percolation of applied water, and deep percolation of precipitation is about 45,000 acre-feet, while the total average SID and private groundwater pumping is about 30,000 acre-feet (Davids Engineering, Inc. 2018). The related projects considered in this cumulative analysis would create new impervious surfaces as a result of new urban development. The new impervious surfaces would, in turn, reduce the area that is available for percolation of rainwater through the soil and into the groundwater aquifer. Most of the projects considered in this cumulative analysis consist of urban infill projects in existing developed areas, and therefore would not result in a substantial

reduction in groundwater recharge. Therefore, the cumulative impact of the related projects considered in this cumulative analysis would avoid a significant cumulative impact.

Development of approximately 66 or 51 acres, respectively, of new impervious surfaces at the Project Site under the proposed Project or Alternative 2 would result in a decrease of only approximately 13.5 or 10.5 percent, respectively, of the existing pervious surfaces that are currently available for groundwater recharge at the Project Site. Furthermore, no new groundwater wells would be drilled to support the proposed Project or Alternative 2; rather, surface water would be supplied by SID. Therefore, the proposed Project or Alternative 2 would result in a **less than cumulatively considerable contribution** to cumulative impacts from substantial interference with groundwater recharge.

The related projects considered in this cumulative analysis, along with the proposed Project and Alternative 2, are located within the Suisun–Fairfield Valley Groundwater Basin. Because DWR has designated the Suisun–Fairfield Valley Groundwater Basin as a low priority basin, a groundwater sustainability plan is not required and has not been prepared. Thus, there would be **no cumulative impact** relating to the potential for impeding implementation of a groundwater sustainability plan.

### **5.3.9 LAND USE & PLANNING, POPULATION AND HOUSING**

The geographic scope for this cumulative analysis related to land use, planning, population, and housing consists of the City of Suisun City, the City of Fairfield, and the southern portion of Solano County.

Cumulative development within the region would result in substantial changes in land use, and individual projects would need to be considered in context of their compliance with adopted land use plans. Plans with which compliance may be analyzed include general plans, habitat conservation plans, and regional transportation plans. Implementation of the proposed Project or Alternative 2 would not conflict with plans, policies, or regulations in a way that would generate any adverse physical impacts beyond those addressed in detail in the environmental sections of this Draft EIR (e.g., agriculture, air quality, biological resources, cultural resources, etc.). Land use inconsistencies are not physical effects in and of themselves and combinations of policy inconsistencies would not rise to the level of a physical effect. Cumulative effects of the physical changes related to the proposed Project and Alternative 2 are discussed in the other topics in this section. **No cumulatively considerable** impacts would occur.

Like land use policy inconsistency, population growth is not considered a significant cumulative effect because it is not a physical environmental impact. However, the direct and indirect effects, such as housing and infrastructure needs that are related to population growth, can lead to physical environmental effects.

The county and incorporated cities implement general plans and specific or master plans that could potentially accommodate substantially greater population and employment growth compared to regional forecasts and planning efforts. Increased population and employment in the region could generate the need for additional housing and infrastructure, which could lead to conversion of undeveloped land and associated adverse physical environmental impacts of the sort that are considered in this topic-specific sections of this EIR and this chapter, as appropriate. Considering the indirect effects from past, present, and future development under the cumulative projects, the potential for population growth in the region is a significant cumulative impact.



The proposed Project and Alternative 2 do not propose housing that would generate new residents in the city. Development of new building space under the proposed Project and Alternative 2 could indirectly lead to some population growth by creating new local jobs. However, based on 2022 estimates, the city had a jobs to housing ratio of 0.41, which indicates a predominance of residential uses and less jobs potentially available to workers. The proposed Project and Alternative 2 support the City's goals to create opportunities to generate jobs and attract new employment-creating industries to Suisun City. Furthermore, the proposed Project and Alternative 2 contribute to meeting the Plan Bay Area 2050's goal of a 1.2 jobs/housing balance for North Solano County by improving the City of Suisun City's jobs-to-housing ratio by locating employment land uses on historically underutilized land near existing infrastructure, transportation corridors, and residential areas. New and expanded infrastructure would be planned to meet demands for new development and would not create additional utility capacity in the Development Area beyond what would be necessary to serve the proposed Project or Alternative 2. Specific indirect impacts associated with increased population, such as traffic congestion, air quality degradation, and noise generation, are addressed in each section of this EIR and this chapter, as appropriate. These sections provide a detailed analysis of other relevant environmental effects as a result of development of the proposed Project and Alternative 2. This section focuses on any additional impacts related to population, employment, or housing not already fully addressed and mitigated, where appropriate, in other sections. Therefore, the proposed Project or Alternative 2 would not induce substantial planned or unplanned population growth, and these impacts are **less than cumulatively considerable**.

### 5.3.10 NOISE AND VIBRATION

The geographic scope for this cumulative analysis related to noise and vibration consists of the Project Site, Alternative 2 Site, and immediately adjacent areas for construction noise and vibration impacts, and roadways in the vicinity of the Project Site and Alternative 2 Site. Traffic noise from passenger and commercial trains and transit vehicles would be the primary noise sources under cumulative conditions. Stationary noise sources from commercial areas, waste removal, and construction and maintenance activities also would contribute to the cumulative noise environment.

Construction noise generated by the proposed Project or Alternative 2, in combination with construction activities for other projects that may be constructed simultaneously could, without mitigation, substantially increase ambient noise levels in the Project vicinity. However, no other projects are within proximity close enough to result in cumulative construction noise contributions. Therefore, the proposed Project or Alternative 2 would result in **no cumulative impacts** from construction-related noise and vibration.

With respect to Project operation, as discussed in detail in Section 4.10, "Noise and Vibration" and in Chapter 6, "Alternatives," operational noise sources associated with the proposed Project or Alternative 2 would be less than significant with implementation of Mitigation Measure 4.10-3a to reduce non-transportation source noise levels. Also, vehicular traffic would be the dominant noise source under cumulative conditions. Traffic generated under cumulative conditions by the proposed Project would contribute to a substantial increase in future traffic noise conditions along one roadway: Pennsylvania Avenue from SR 12 to South of SR 12. There are no existing noise-sensitive uses along this segment of the roadway and this area is not planned or designated for any noise-sensitive uses. Traffic generated under cumulative conditions by Alternative 2 would not contribute to a substantial increase in future traffic conditions. Therefore, long-term noise levels from traffic and non-transportation sources generated by the proposed Project or Alternative 2 would not result in a substantial permanent increase in ambient

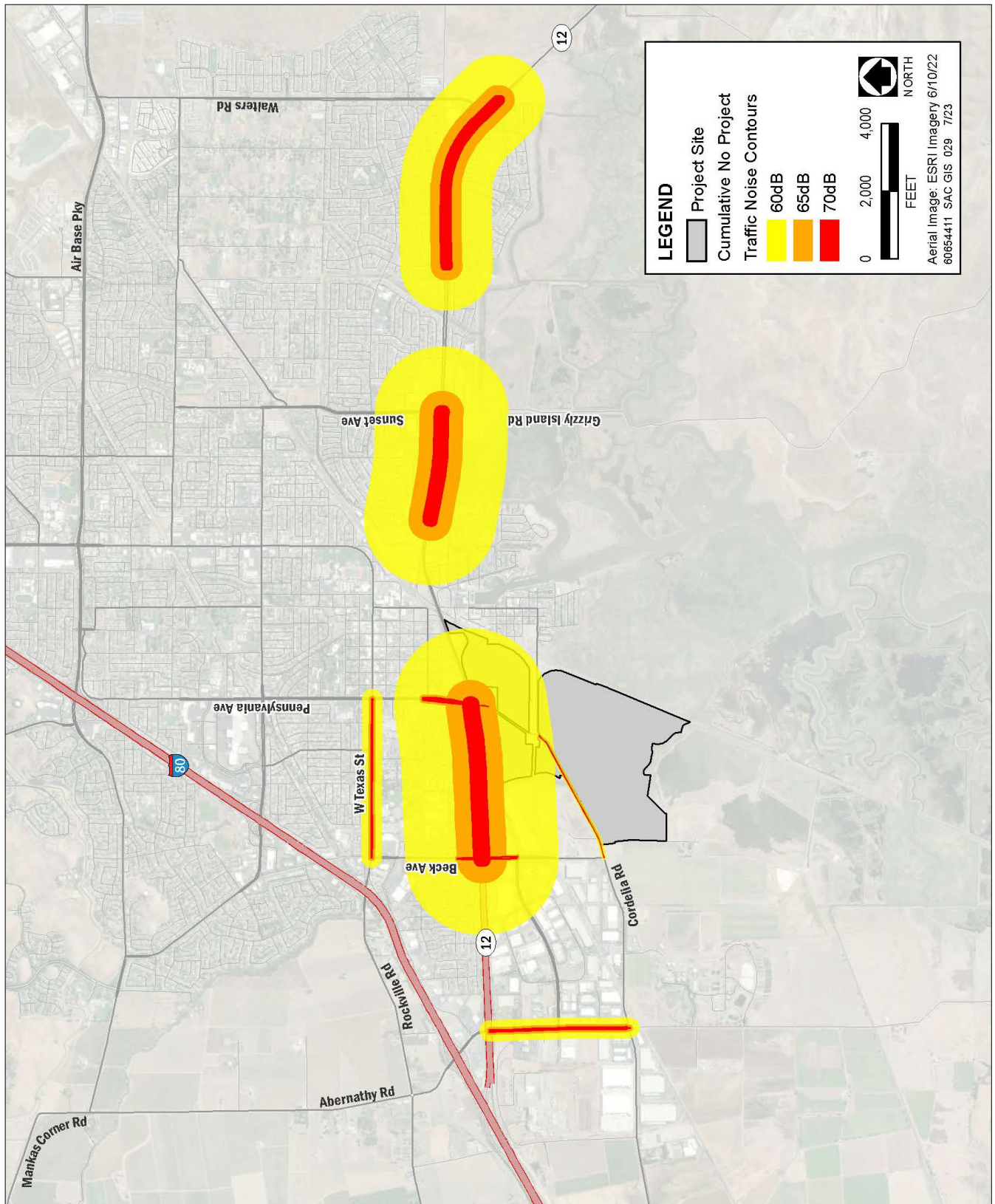
noise levels under future cumulative conditions. As a result, this impact is considered **less than cumulatively considerable**.

The Project’s contribution to the existing and future traffic noise levels along area roadways was determined by comparing the predicted noise levels with and without Project-generated traffic. Table 5-2 summarizes the modeled traffic noise levels at 50 feet from the centerline of affected roadway segments in the vicinity of the proposed Project Site. Exhibit 5-1 and Exhibit 5-2 illustrate traffic noise contours for cumulative and cumulative plus Project conditions, respectively. As noted in Section 4.12, Transportation and Circulation, of this EIR, a 3-dBA increase in noise level is barely perceptible (Caltrans 2013). As such, modeled increases of 3 dBA in comparison to cumulative no Project conditions are indicated in bold. Modeled roadway noise levels assume no natural or artificial shielding between the roadway and the receptor.

**Table 5-2. Predicted Traffic Noise Levels, Cumulative Conditions, L<sub>dn</sub> at 50 Feet, dB**

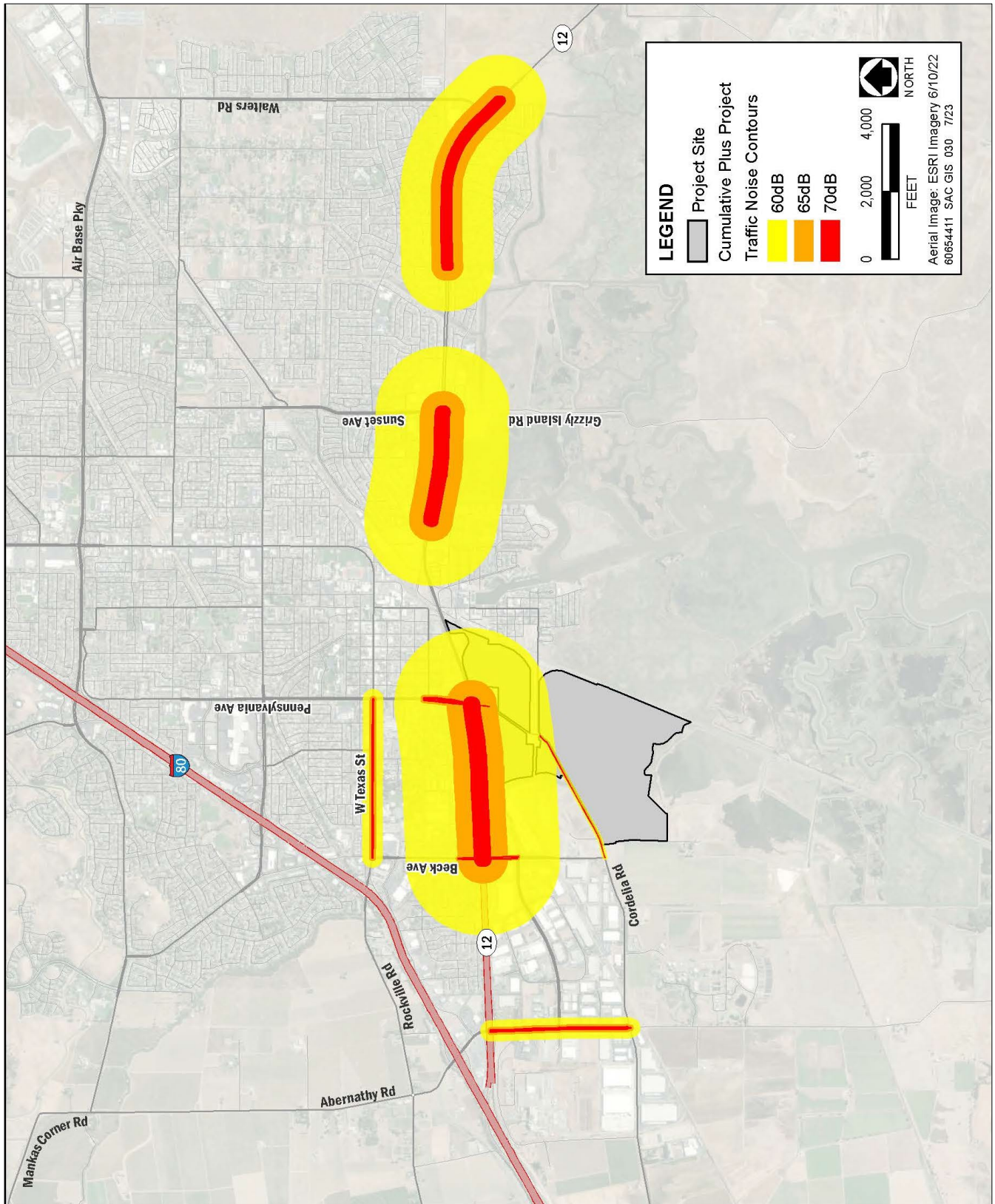
Roadway Segment	Segment Location	Cumulative No Project	Cumulative Plus Proposed Project	Net Change	Significant Impact?
Chadbourne Road	From SR-12 to Cordelia Road	67.7	67.7	0.0	No
Beck Avenue	From SR-12 to North of SR-12	66.9	66.9	0.0	No
Beck Avenue	From SR-12 to South of SR-12	65.5	65.6	0.1	No
West Texas Street	From Beck Avenue to Pennsylvania Avenue	67.7	67.7	0.0	No
SR-12	From Beck Avenue to Pennsylvania Avenue	76.5	76.5	0.0	No
Cordelia Road	From Beck Avenue to Pennsylvania Avenue	61.0	61.3	0.2	No
Pennsylvania Avenue	From SR-12 to North of SR-12	67.7	67.8	0.1	No
Pennsylvania Avenue	From SR-12 to South of SR-12 <sup>a</sup>	62.7	63.3	0.6	<b>Yes</b>
SR-12	From Marina Boulevard to Grizzly Island Road	75.9	75.9	0.0	No
SR-12	From Emperor Drive to Walters Road	74.2	74.2	0.0	No

Notes: dB = A-weighted decibels; L<sub>dn</sub> = day-night average noise level  
a There are no noise-sensitive uses along this segment of the roadway.  
Source: AECOM 2023



Source: AECOM 2022

**Exhibit 5-1. Cumulative No Project Roadway Noise Contours**



Source: AECOM 2022

**Exhibit 5-2. Cumulative Plus Proposed Project Roadway Noise Contours**

As shown in Table 4.12-19, the modeling conducted shows that Project-related traffic would increase noise levels by 0 dBA to 0.6 dBA  $L_{dn}$  compared to cumulative no Project conditions. Traffic generated under cumulative conditions by the proposed Project would not contribute to a substantial increase in future traffic noise conditions along the Project area roadway. Alternative 2 would result in reduced operational space and therefore a decrease in Project-generated traffic associated with both worker vehicles and visiting trucks. Traffic generated by Alternative 2 would use the same roadways as the proposed Project. Therefore, long-term noise levels from traffic generated by the proposed Project or Alternative 2 would not result in a substantial permanent increase in ambient noise levels (an increase of 3 dBA or greater) under future cumulative conditions. As a result, this impact is considered **less than cumulatively considerable**.

### 5.3.11 PUBLIC SERVICES AND RECREATION

The geographic scope for this cumulative analysis related to public services and recreation consists of the City of Suisun City.

The proposed Project or Alternative 2 would not increase the population in the Project area such that there would be physical environmental effects to schools, parks, other public facilities (i.e., libraries), or recreation facilities. Therefore, **no cumulative impacts** would occur in relation to these public services.

The related projects considered in this cumulative analysis would result in new urban development, which would in turn result in the need for fire and police protection services. The proposed Project or Alternative 2 would also develop new land uses that could potentially result in an increase demand for fire and police protection services. In terms of cumulative impacts, appropriate service providers are responsible for ensuring adequate provision of public services within their service boundaries. Therefore, the following discussion analyzes the cumulative impacts on fire and police protection services from implementation of the proposed Project or Alternative 2 and future, related projects within their respective service areas.

#### Fire Protection Services

The Suisun City Fire Department would provide fire protection services to the Annexation Area, inclusive of the proposed Development Area under the proposed Project or Alternative 2, after annexation of this area into the city limits. The Suisun City Fire Department is an All-hazards/All-risk Fire Department that covers the 4.5 square miles that encompass the boundaries of the City of Suisun City. New development within the Suisun City Fire Department service area would increase demand for fire protection services and facilities, potentially resulting in the need for additional staff members, facilities, and equipment. Individual development projects would be required to assess impacts related to fire protection services during the environmental review process to ensure that the Suisun City Fire Department has sufficient facilities and equipment to meet demand. Furthermore, all projects are required to pay the Fees for New Construction per Section 3.16 of the Suisun City Municipal Code to ensure fire protection personnel and equipment is provided to meet increased demand for fire protection services. The related projects would also be required to incorporate applicable requirements of the California Fire Code, reducing demands on fire suppression equipment and personnel. Therefore, the related projects considered in this cumulative analysis would result in no cumulative impact.

The Project applicant would be required to incorporate all requirements of the California Fire Code, California Health and Safety Code, and City standards into Project designs for the proposed Project or Alternative 2. Incorporation of all State and local requirements into Project designs would reduce the dependence on the Suisun

City Fire Department equipment and personnel by reducing fire hazards. Furthermore, the Project applicant for the proposed Project or Alternative 2 would pay the Fees for New Construction per Section 3.16 of the Suisun City Municipal Code, which establishes a fee for new construction to meet the City’s current and future needs for capital improvements, including land acquisition and construction of public buildings and other facilities. Payment of the fee would offset the cost of fire service demands associated with the proposed Project. Therefore, the proposed Project or Alternative 2 would have a **less than cumulatively considerable contribution** to the cumulative impact related to increased fire protection services and facilities.

### **Police Protection Services**

The Suisun City Police Department (SCPD) provides law enforcement services to the city and would provide services to the Annexation Area, inclusive of the proposed Development Area under the proposed Project or Alternative 2, after annexation. The SCPD prepared a *Police Department Staffing and Facility Assessment* to comprehensively study the SCPD’s future staffing and facility needs to maintain appropriate levels of service (Matrix Consulting Group 2021). The assessment recommended that by 2030 a total of 22 patrol officers would be required to adequately respond to calls for service (Matrix Consulting Group 2021). New development within the SCPD service area would increase demand for fire protection services and facilities, potentially resulting in the need for additional staff members, facilities, and equipment. Individual development projects would be required to assess impacts related to police protection services during the environmental review process to ensure that the SCPD has sufficient facilities and equipment to meet demand. All projects must pay the required Fees for New Construction per Section 3.16 of the Suisun City Municipal Code to ensure police protection personnel and equipment is provided to meet increased demand for police protection services. Therefore, the related projects considered in this cumulative analysis would result in no cumulative impact.

It is anticipated that employment opportunities created by the proposed Project or Alternative 2 would not substantially increase the City’s population. In addition, because the proposed Project and Alternative 2 do not include development of new housing, the proposed Project or Alternative 2 would not generate new residents that require additional SCPD staffing to maintain the officer-to-population service ratio. The proposed Project or Alternative 2 would not affect SCPD response times or other performance objectives because project applicants would pay the required Fees for New Construction per Section 3.16 of the Suisun City Municipal Code to ensure police protection personnel and equipment is provided to meet increased demand for police protection services. Furthermore, the proposed Project or Alternative 2 would annex into a community facilities district and incorporate security measures into Project designs, such as security gates, parking lot illumination, on-site security patrols, and fencing, which would reduce the need for police protection services by reducing the potential for crime. Therefore, the proposed Project or Alternative 2 would **result in no cumulative impacts** related to increased police protection services and facilities.

### **5.3.12 TRANSPORTATION**

The geographic scope of the cumulative transportation analysis is the roadway network within Suisun City.

The proposed Project or Alternative 2 would not conflict with programs, plans, ordinances, and policies addressing the circulation system – either in project level or a cumulative sense. Conflict with programs, plans, ordinances, and policies are a possible indicator of an adverse physical impact, but not an environmental impact. Neither the proposed Project nor Alternative 2 would increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) – either at the Project level

or cumulative level. Mitigation Measure 4.12-2 would ensure that access points and internal circulation is free from any traffic hazard. Individual projects are reviewed and conditioned for consistency with City standards, which are designed to avoid such impacts. The site plan for the proposed Project or Alternative 2 does not provide pedestrian or bicycle facilities along Pennsylvania Avenue or Cordelia Road that connect to existing and planned facilities. Inadequate pedestrian and bicycle facilities and connections to the existing pedestrian and bicycle network and transit stations would expose pedestrian and bicyclists to hazardous conditions. However, Mitigation Measure 4.12-3 of this EIR would reduce this potential impact for the proposed Project or Alternative 2 to less than significant. The Project or Alternative 2 would provide a complete on-site circulation network with multiple ingress and egress. The final site plan must be approved by the Suisun City Fire Department to ensure the emergency access routes meet requirements to facilitate the safe movement of emergency vehicles. The contributions of the proposed Project or Alternative 2 to area transit, pedestrian, and bicycle travel would not be cumulatively considerable compared to the overall growth of the area and Suisun City and would not result in significant cumulative impacts. The impact is **less than cumulatively considerable**.

A VMT analysis for cumulative and cumulative plus Project conditions was conducted consistent with the Suisun City VMT-based CEQA thresholds. The City of Fairfield travel demand model (year 2035), which includes Fairfield and Suisun City, was used to analyze the Project’s impact on VMT.<sup>1</sup> The cumulative VMT assessment uses the same significance criteria described in Impact 4.12-1. The cumulative VMT analysis results are summarized in Table 5-3. Based on the model runs, the cumulative citywide average home-based work daily VMT per employee is 13.7, and thus the 85 percent citywide average threshold is 11.7. The proposed Project is expected to result in 12.9 home-based work daily VMT per employee, which is 1.2 VMT greater than the threshold. The Alternative 2 is expected to result in 13.0 home-based work daily VMT per employee, which is 1.3 VMT greater than the threshold. The proposed Project and Alternative 2 would also increase total citywide daily VMT by approximately 10,000 and 1,000, respectively.

**Table 5-3. Cumulative and Cumulative Plus Project Daily VMT Results**

Scenario	Criterion 1: Home-Based Work VMT per Employee	Criterion 2: Total Citywide VMT
No Project Value	13.7	961,000
Threshold Value	11.7 <sup>1</sup>	961,000 <sup>2</sup>
Project Value	12.9	970,000
Alternative 2 Value	13.0	962,000
Change between Threshold and Project Value	+1.2	+9,000
Change between Threshold and Alternative 2 Value	+1.3	+1,000

Table Notes

1. Represents 85 percent of the City-wide average home-based work VMT per employee.
2. Represents the total City-wide VMT.

However, the TDM Plan described in Mitigation Measure 4.12-1 shall be designed to achieve the trip reduction, as required to reduce the commute trip VMT per employee to the threshold value of 11.7 for the proposed Project or Alternative 2. The analysis prepared to support the TDM Plan shall demonstrate that the selected reduction measures will achieve the necessary VMT reduction. The criterion to evaluate VMT impacts were specifically established to ensure that an individual projects that meet these criteria would support the citywide VMT

1 The 2035 Fairfield Travel Model includes the City of Fairfield and City of Suisun City approved and pending projects and General Plan Buildout assumptions for land uses and roadway improvements.

reduction targets, which account for past, present, and future land use operations. Therefore, with implementation of Mitigation Measure 4.12-1, the proposed Project or Alternative 2 would result in a **less-than-cumulatively-considerable contribution to this impact**.

### **5.3.13 UTILITIES AND SERVICE SYSTEMS**

The geographic scope for utilities consists of future development that would occur within each utility provider's service area. Utilities and service systems would be provided to the proposed Project or Alternative 2 by the Solano-Suisun Water Authority (SSWA), the City of Suisun City, and Fairfield-Suisun Sewer District (FSSD), and Pacific Gas & Electric Company. The related projects discussed in this section include future development that would occur within each provider's service area.

Environmental impacts related to constructing or expanding utility infrastructure, including water, sewer, electrical, and natural gas infrastructure, to serve the Development Area under the proposed Project or Alternative 2 are analyzed throughout the various environmental topic specific sections of this cumulative analysis in conjunction with overall development in the Project Site or the Alternative 2 Site. The placement of these utilities has been considered in the other sections of this cumulative analysis, such as Section 6.3.3, "Air Quality," Section 6.3.4, "Biological Resources," Section 6.3.5, "Cultural Resources," Section 6.3.10, "Hydrology and Water Quality," and other sections that specifically analyze the potential impacts from the development of the Project Site, as well as Chapter 5, "Alternatives." Where necessary, these sections include mitigation measures that would reduce or avoid the impacts of developing infrastructure on the physical environment. There is no additional significant impact related to construction of new or expanded utilities and service systems within the Development Area under the proposed Project or Alternative 2 beyond what is comprehensively analyzed throughout this EIR.

#### **Water Supply**

Water supply for the Development Area under the proposed Project or Alternative 2 would be provided by the SSWA. The SSWA's Urban Water Management Plan (UWMP), which was adopted by the SSWA Board of Directors on June 13, 2016, addresses water supply and demand issues, water supply reliability, water conservation, and water shortage contingencies within the SSWA's service area. Water supplies and demands within the SSWA service area would be the same during normal, single-dry, and multiple-dry years. Table 4.13-1 in Section 4.13, "Utilities and Service Systems," of this EIR identifies surface water supply and demand within SSWA service area from 2020 to 2040 in normal, single dry, and multiple dry years excluding the proposed Project. As shown in Table 4.13-1 of Section 4.13, SSWA would have water supplies that meet demands in all water years.

The Solano Irrigation District (SID) commissioned a Water Supply Assessment (WSA) for the proposed Project which is provided in Appendix F of this Draft EIR. The WSA estimated water demand for the 93-acre Development Area under the proposed Project as 105 acre-feet per year (Kjeldsen, Sinnock & Neudeck, Inc. [KSN] 2022).<sup>2</sup> As discussed in the WSA prepared for the proposed Project, SID was not able to confirm it would

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<sup>2</sup> This water supply demand does not reflect 2022 CALGreen Code (Title 24, Part 11 of the California Code of Regulations) requirements to reduce indoor demand for potable water by 20 percent and to reduce landscape water usage by 50 percent or water conservation measures that may be implemented by future development.



have surplus water available to meet a water supply for lands located outside its boundaries.<sup>3</sup> The current available water supplies, with expectation of increased SID irrigation demands, together with the severe multiple year (2012-2016) drought, and uncertainty regarding reliability of State Water Project North Bay Aqueduct water supplies during severe droughts, highlighted the need to further evaluate SSWA water supply options (KSN 2022). The Second Amendment to the Implementation/Lease Agreement between the City of Suisun City and Solano Irrigation District, effective August 16, 2022, provides for a path forward to implement a point of transfer for the State Water Project water transfer. In addition, one SSWA regulatory requirement for water service, as outlined in the Second Amendment to the Implementation Agreement, is that “new land is to be “...annexed into the Joint Service Area before water can be made available.” With implementation of the Second Amendment to the Suisun/Solano Implementation Agreement and Lease Agreement and annexation of the Project Site, the WSA concluded that SSWA water supply would be sufficient to meet demands of the proposed Project and existing and planned development in SSWA service area in normal, single-dry, and multiple dry years (KSN 2022). Although a WSA has not been prepared specifically for Alternative 2, because Alternative 2 would result in reduced building square footage with fewer employees, the water demand for Alternative 2 would be lower as compared to the proposed Project. Therefore, the WSA conclusion for the proposed Project would also apply to Alternative 2. A significant cumulative impact would not occur. Therefore, the proposed Project or Alternative 2 **would not result in a cumulatively considerable contribution** to cumulative impacts related to water supply demand.

### **Wastewater Treatment Facilities**

Development in the Project region would create an increased need for wastewater treatment. Wastewater flows collected from FSSD pump stations are ultimately transported into the Fairfield-Suisun Subregional Wastewater Treatment Plant (WWTP). The WWTP currently treats 16.1 million gallons per day (mgd) average dry-weather flow (Woodard & Curran 2020a). In the long term, the 2020 FSSD Master Plan Update estimates that at buildout of the FSSD service area, the average daily flow could reach 23.0 mgd (Woodard & Curran 2020a).

Buildout of the Development Area under the proposed Project or Alternative 2 would result in new land uses that would generate additional wastewater, which would in turn increase the demand for wastewater treatment at the Fairfield-Suisun Subregional WWTP. The 2020 FSSD Master Plan did not include any wastewater flows from the proposed Project because the Project Site is outside of the city limits. A technical memorandum for the proposed Project was prepared to assess the sewer impacts on the existing FSSD system. The technical memorandum noted that the type of uses may generate somewhat lower flows than typical industrial uses assumed in the 2020 FSSD Master Plan; the unit flow factor should therefore be considered a conservative estimate of potential wastewater generation (Woodward & Curran 2020b). This would also be true for Alternative 2, which would include the same land uses as the proposed Project, but with a reduced amount of development.

Wastewater generated by the proposed Project or Alternative 2 would be conveyed off site to Fairfield-Suisun Subregional WWTP for treatment. The Fairfield-Suisun Subregional WWTP has a maximum average dry-weather design treatment capacity of 23.7 mgd and the current average dry weather flow is approximately 16.1 mgd (Woodard & Curran 2020a). The proposed Project-related wastewater flows (0.128 mgd) would not result in an increase in wastewater flows that exceed the current disposal capacity of 23.7 mgd average dry-weather flow.

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<sup>3</sup> SID engaged a consultant to reevaluate its water supply and water demands in 2015 (see Appendix C in the WSA). The analysis demonstrated that SID’s agricultural and urban water demand would exceed its Solano Project entitlement with shortages ranging from 7,000 afy to 27,000 afy. It was also noted that SID has future water supply contract commitments to urban areas in Solano County scheduled to increase from 18,976 afy to 34,929 afy in 2024 (KSN 2022).

Since fewer jobs would be created under Alternative 2, the amount of wastewater generated would be less than the proposed Project; therefore, the Alternative 2 wastewater flows would also not exceed the current Fairfield-Suisun Subregional WWTP disposal capacity. Therefore, the Fairfield-Suisun Subregional WWTP would have adequate capacity to serve the projected demand under the proposed Project and Alternative 2, in addition to its existing and future commitments. A significant cumulative impact would not occur, and the proposed Project or Alternative 2 **would not result in a cumulatively considerable contribution** to cumulative impacts related to wastewater treatment.

## **Solid Waste**

Solid waste in Suisun City is transported by Solano Garbage and disposed of at the Potrero Hills Landfill. According to CalRecycle, the Potrero Hills Landfill has a maximum permitted throughput of 4,330 tpd and has a total maximum permitted capacity of 83.1 million cubic yards (CalRecycle 2022). The Potrero Hills Landfill has a remaining capacity of approximately 13.9 million cubic yards and an anticipated closure date of February 14, 2048 (CalRecycle 2022).

Future development would comply with all federal, State, and local solid waste statutes and regulations, including Compliance with the CALGreen Code, the City's the Construction and Demolition Debris Recycling Program, Sections 8.08 (Solid Wastes) and 8.10 (Recyclable Materials) of the Suisun City Municipal Code, Assembly Bill 341 (commercial recycling programs), Assembly Bill 1826 (mandatory commercial organics recycling), and other City recycling programs. Implementation of these codes and programs would reduce the volume of solid waste disposed of at the Potrero Hills Landfill and ensure sufficient landfill capacity would be available to accommodate solid-waste disposal needs for the proposed Project, Alternative 2, and future development associated with the related projects considered in this cumulative analysis. Therefore, **no significant cumulative** impact would occur.

## **Electricity & Natural Gas**

Increased demand for electrical and natural gas supplies and infrastructure is a byproduct of all future land uses and development in Solano County and the region. Energy is consumed for heating, cooling, and electricity in homes and businesses; for public infrastructure and service operations; and for agriculture, industry, and commercial uses. Regional growth would involve new building construction, development projects and plans, transportation facilities, and other activities that would demand additional energy resources. Local jurisdictions and service providers are responsible for ensuring adequate provision of these utilities and would be responsible for upgrading their existing electrical and natural gas distribution systems or constructing new distribution systems to meet the demands of individual projects. Land use change throughout the region will require the construction of new energy infrastructure, the construction and operation of which could have **significant cumulative impacts**.

Electricity and natural gas service for the Project Site would be provided by Pacific Gas and Electric Company. Service laterals would be extended to Project buildings from existing facilities along Pennsylvania Avenue and Cordelia Road. On-site electrical transmission infrastructure and natural gas lines would be installed underground and would generally follow the alignment of the internal roadway network.

Environmental impacts related to constructing or expanding utility infrastructure, including electrical and natural gas infrastructure, to serve the Development Area under the proposed Project or Alternative 2 are analyzed

throughout the various environmental topic specific sections of this EIR in conjunction with overall development in the Project Site. The placement of these utilities has been considered in the other sections of this EIR, such as Section 4.2, “Air Quality,” Section 4.3, “Biological Resources,” Section 4.4, “Cultural Resources,” Section 4.8, “Hydrology and Water Quality,” and other sections that specifically analyze the potential impacts from the development of the Project Site (or related analyses for Alternative 2 in Chapter 6, Alternatives). Where necessary, these sections include mitigation measures that would reduce or avoid the impacts of developing infrastructure on the physical environment. There is no additional significant impact related to construction of new or expanded utilities and service systems within the Development Area beyond what is comprehensively analyzed throughout this EIR. Therefore, **no significant cumulative** impact would occur.

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