

5 CUMULATIVE IMPACTS

5.1 INTRODUCTION TO THE CUMULATIVE ANALYSIS

Section 15130 of the *State CEQA Guidelines* requires that an EIR discuss cumulative impacts of a project and determine whether the project's incremental effect is cumulatively considerable. The definition of "cumulatively considerable" is provided in Section 15065(a)(3):

"Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

According to Section 15130(b) of the *State CEQA Guidelines*:

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 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.

For purposes of this EIR, the proposed project would have a significant cumulative effect if:

- ▶ the cumulative effects of related projects (past, current, and probable future projects) without the project are not significant and the project's incremental impact is substantial enough, when added to the cumulative effects, to result in a significant impact; or
- ▶ the cumulative effects of related projects (past, current, and probable future projects) without the project are already significant and the project contributes measurably to the effect. The standards used herein to determine measurability are that the impact either must be noticeable or must exceed an established threshold of significance.

Mitigation measures are to be developed, where feasible, that reduce the project's contribution to cumulative effects to a less-than-significant level.

This DEIR identified potentially significant environmental impacts associated with implementation of the proposed project; those impacts are addressed in Chapter 4, "Environmental Setting, Thresholds of Significance, Environmental Impacts, and Mitigation Measures."

These issues, and others that could contribute considerably to cumulatively significant effects, are discussed below in the context of cumulative development.

5.2 CUMULATIVE CONTEXT

San Joaquin County and the cities within the county, including Stockton, are facing numerous regional issues pertaining to air quality degradation, traffic congestion, loss of biological habitat, loss of farmland, and other environmental changes related to urbanization.

San Joaquin County is located east of the Coast Ranges, which separate California's Central Valley from the San Francisco Bay Area. San Joaquin County covers approximately 909,000 acres. Approximately 809,000 acres or nearly 90% of the county is used or available for agriculture (row and field crops, orchards, vineyards, and grazing lands). The remaining lands are dominated by various types of development (approximately 59,000 acres), natural habitats (woodlands, riparian), and open water (lakes, rivers, Sacramento-San Joaquin Delta [Delta] waterways). Most of the growth in San Joaquin County has occurred in the incorporated cities of

Stockton, Tracy, Manteca, Lathrop, Ripon, and Escalon. In particular, Stockton and Tracy represented 69% of the county's population gain between 1990 and 2000. The county's population grew from 480,628 in 1990 to 563,598 in 2000 (U.S. Census Bureau 2000), and the population as of January 1, 2005—the most recent estimate available—was 646,259 (DOF 2006). Much of the population increase can be attributed to an influx of workers from the San Francisco Bay Area. According to the San Joaquin Council of Governments (SJCOC), rapid job expansion in the Bay Area over the last 20 years has exerted pressure on housing prices in that area, which in turn has resulted in increased migration to San Joaquin County. As a result, many San Joaquin County residents commute to jobs in Bay Area counties and cities. The net number of residents who live in the county and commute to the Bay Area increased from 17,585 to 29,800 between 1990 and 2000, or from approximately 9% to 14% of the total workforce. (San Joaquin County 1992.)

Stockton is located near the center of San Joaquin County and is approximately 83 miles east of the Bay Area and 40 miles south of Sacramento. Interstate 5 runs north-south near the western border of the city and State Route 99 runs north-south near the city's eastern border. The primary zone of the Delta is located west of the city, and much of the westernmost part of the city is located within the Delta's secondary zone. According to U.S. Census Bureau records, the population of Stockton grew from 210,943 to 243,771, or 15.6%, from 1990 to 2000. The population as of January 1, 2005, is estimated to be 280,249 (DOF 2006).

5.3 GEOGRAPHIC SCOPE

The geographic area that could be affected by the project varies depending on the type of environmental resource being considered. When the effects of the proposed project are considered in combination with those other past, present, and future projects to identify cumulative impacts, the other projects considered may also vary depending on the type of environmental effects being assessed. The general geographic area associated with different environmental effects of the proposed project defines the boundaries of the area used for compiling the list of projects considered in the cumulative impact analysis. Table 5-1 presents the general geographic areas associated with the different resources addressed in this DEIR analysis.

Table 5-1 Geographic Scope of Cumulative Impacts	
Resource Issue	Geographic Area
Land Use and Planning	Regional and local
Agricultural Resources	San Joaquin County
Traffic and Circulation	Regional and local
Air Quality	Regional (pollutant emissions that have regional effects), immediate project vicinity (pollutant emissions that are highly localized), and global (greenhouse gas emissions)
Noise	Local (immediate project vicinity where effects are localized)
Hydrology and Water Quality	Local (watershed)
Biological Resources	Project vicinity
Cultural Resources	Local (limited to project site and off-site improvement areas)
Geology and Paleontology	Local (limited to project site and off-site improvement areas)
Hazards and Hazardous Materials	Local (immediate project vicinity)
Population, Employment, and Housing	Regional and local
Public Services	Regional and local
Water Supply	Regional
Public Utilities	Regional
Visual Resources	Local (immediate project vicinity)
Source: Data provided by EDAW in 2008	

5.4 LIST OF RELATED PROJECTS

The list of past, present, and probable future projects used for this cumulative analysis is restricted to those projects that have occurred or are planned to occur in Stockton or nearby areas of San Joaquin County (as defined above). For the purposes of this discussion, these projects that may have a cumulative effect on the resources in the project vicinity will often be referred to as the “related projects.” These related projects are identified in Exhibit 5-1 and Table 5-2. The analysis of cumulative environmental impacts associated with the proposed project addresses the potential incremental impacts of the proposed project in combination with these related projects. The list of projects in Table 5-2 is not intended to be an all-inclusive list of projects in the region, but rather to identify projects approved or planned in the Stockton area or elsewhere in San Joaquin County that have some relation to the proposed project and/or the setting conditions of the proposed project.

Two state-sponsored projects have been approved in the immediate vicinity of the project site. The approved California Conservation Corps (CCC) Delta Services Center (Delta Services Center) is located north and west of the site, abutting the O. H. Close Youth Correctional Facility to the north. The Delta Services Center will consist of an administrative building, educational and recreational buildings, four residential buildings, a multi-purpose building, a hazardous materials storage shed, and a warehouse. The California Department of Corrections and Rehabilitation (CDCR) approved a project to convert the Correctional Training Center Annex (CTCA) facility into the Northern California Re-Entry Facility, to provide counseling, services, job training, and housing placement services for up to 500 adult male inmates who are a year or less from their release dates.

Additionally, San Joaquin County Sheriff’s Department is planning to expand the existing jail, which currently has 1,333 beds. The jail is located west of Interstate 5 approximately 5.5 miles west of the project site. The jail expansion would increase the number of beds to 2,933 beds total, which is an increase of 1,600 beds.

Because the proposed project is large and would directly influence and be influenced by regional development activities, the plan approach was used to evaluate cumulative impacts on a regional scale. The regional cumulative analysis area covers the incorporated and unincorporated areas of San Joaquin County. The analysis included an evaluation of the *San Joaquin County General Plan 2010* (County General Plan), the *City of Stockton General Plan 2035* (City General Plan), and the *San Joaquin County Multi-Species Habitat Conservation and Open Space Plan* (SJMSCP). A summary of the cumulative planning environment in San Joaquin County and the city of Stockton that is used for the regional cumulative impact analysis is provided below.

5.4.1 SAN JOAQUIN COUNTY GENERAL PLAN 2010

The County General Plan was adopted in 1992 and includes community plans for each of San Joaquin County’s 11 planning subareas (Delta, Escalon, Lathrop, Linden, Lockeford, Lodi, Manteca, Ripon, Stockton, Thornton, and Tracy). Overall, the County General Plan establishes a land use goal to “provide a well-organized and orderly development pattern that seeks to concentrate urban development and protect the county’s agricultural and natural resources” (San Joaquin County 1992). Most of the county’s planned future developed uses are residential. New residential development is expected to occur in four primary areas in the county: the incorporated cities (Stockton, Tracy, Lathrop, Ripon, and Escalon), the unincorporated areas near the cities where services are available, new communities (e.g., Mountain House, New Jerusalem), and existing unincorporated communities (Acampo, Banta, Chrisman, Glennwood, French Camp, Lockeford, Linden, Thornton, and Vernalis). Commercial development would be concentrated in these same areas and along major transportation routes. The County General Plan projected that the population within the county would be approximately 840,739 people by 2010 (San Joaquin County 1992).

Table 5-2 Related Projects		
Project Name or Category	Units (square feet, housing units, beds)	Project Site Size
Nonresidential development throughout the City of Stockton	29,581,000 sq. ft.	--
Residential dwelling units throughout the City of Stockton	15,162 units	--
Cannery Park	1,300 units	450 acres
North Stockton Projects Phase 3	1,067 units	237 acres
Westlake Village	2,600 units	680 acres
Mariposa Lakes (Residential)	10,566 units	1,475 acres
Mariposa Lakes (commercial)	1 million sq. ft.	93 acres
Mariposa Lakes (schools)	750,000 sq. ft.	174 acres
San Joaquin County jail expansion	2,933 beds total (increase of 1,600 beds)	--
Northern California Re-Entry Facility (NCRF)	500 beds	134 acres
California Conservation Corps Delta Service Center	52,000 sq. ft.	20 acres
Source: Data compiled by EDAW in 2008		

5.4.2 CITY OF STOCKTON GENERAL PLAN 2035

The City General Plan anticipates that buildout of Stockton, including the City of Stockton's (City's) urban services boundary and sphere of influence, would result in a total population of approximately 576,000 persons by 2035. Buildout of the City General Plan would include an additional 106,488 housing units, of which 17,197 units are currently approved, and an additional 1,002 acres (18,778,688 square feet) of commercial uses, 4,459 acres (78,510,099 square feet) of industrial uses, and 74 acres (904,556 square feet) of commercial/industrial mixed uses (City of Stockton 2006).

5.4.3 SAN JOAQUIN COUNTY MULTI-SPECIES HABITAT CONSERVATION AND OPEN SPACE PLAN

The SJMSCP is a 50-year plan to provide a strategy for balancing the projected development of more than 109,300 acres of existing open space with the preservation of the agricultural economy, open space, and habitat for several endangered species in San Joaquin County (SJCOG 2000). The SJMSCP addresses potential impacts on nearly 100 special-status plant, fish, and wildlife species in 52 vegetation communities scattered throughout San Joaquin County.

In the SJMSCP, it is anticipated that 147,000 acres of various categories of open-space lands (including agriculture, rangelands, and natural areas) in the county, including Stockton would be converted to non-open-space uses between 2001 and 2051, based on full buildout of each of the general plans in the county and construction of all anticipated transportation and other public projects. In addition, approximately 59,000 acres of infill of urban lands would occur in this 50-year timeframe. Population in the county, including the city of Stockton, as projected in the SJMSCP, is expected to more than double by 2040, increasing to 1.26 million (SJCOG 2000).



Source: EDAW 2008

Locations of Related Projects

Exhibit 5-1

5.5 ANALYSIS OF CUMULATIVE IMPACTS

5.5.1 LAND USE AND PLANNING

Land uses in the project area have changed over time, from natural land uses decades ago to farmland and, more recently, to a combination of farmland, industrial, and correctional uses (the Richard A. McGee Correctional Training Center Annex [CTCA] and Northern California Youth Correctional Center [NCYCC]). Within the broader project area, the city of Stockton has continued to urbanize, and in doing so, has converted farmland to urban uses.

The proposed facilities at the NCYCC would be located sufficiently distant from surrounding communities (i.e., Stockton) that the project would not physically divide an established community. As described in Section 4.2, “Land Use,” the proposed project was determined to be consistent with relevant policies of the City and County General Plans. It is anticipated that developments under review by local jurisdictions would comply with appropriate development policies. Projects that would not comply with local standards would not be approved. In addition, although the SJMSCP does not apply to state projects, other development in the region under the jurisdiction of the City and County would be required to comply with the SJMSCP; therefore, the proposed project would not contribute to cumulative conflicts with a habitat conservation plan. No existing or reasonably foreseeable cumulatively considerable land use impacts were identified and the proposed project would not result in any significant land use impacts because it is consistent with the land use and zoning designations. Therefore, the proposed project would not contribute to a cumulatively considerable impact, and the project’s impact would be **less than significant**.

5.5.2 AGRICULTURAL RESOURCES

According to the most recent agriculture census for San Joaquin County, conducted in 1997, 3,862 farms occupy approximately 809,000 acres of farmland in the county; this is approximately 90% of the county’s 909,000-acre total land area. The percentage of agricultural land has fluctuated, according to recent agriculture censuses, from approximately 824,000 acres (91%) in 1987 to approximately 784,000 acres (86%) in 1992 and then back up again in 1997 to the acreages mentioned above. In 1997, total cropland in the county was approximately 559,000 acres, and in this area, approximately 519,000 acres were irrigated lands.

As projected in the SJMSCP, population in the county, including the city of Stockton, is expected to more than double by 2040, increasing to 1.26 million (SJCOG 2000), resulting in continued pressure to convert agricultural lands to nonagricultural use. The SJMSCP (SJCOG 2000) estimated that approximately 57,635 acres of agricultural habitat land will be converted from open space use between 2001 and 2051.

The Division of Land Resource Protection of the California Department of Conservation (DOC) estimates that the county had 624,515 acres of Important Farmland in 2004, further classified as 412,550 acres of Prime Farmland, 91,222 acres of Farmland of Statewide Importance, and 62,535 acres of Unique Farmland (DOC 2006). According to the DOC land conversion tables for the county, 11,140 acres of Important Farmland were converted to other uses between 1992 and 2004. Lands classified as Unique Farmland and Farmland of Local Importance actually increased during this period (likely attributable more to designation of existing farmland as unique or important rather than to new farmland being put into production). However, an overall loss of Important Farmland occurred as a result of conversions of Prime Farmland (23,453 acres) and Farmland of Statewide Importance (8,326 acres) to other uses. The county reports that 8,733 acres of farmland are slated for nonagricultural use in the near future; more than half of this is Prime Farmland.

The 144.2-acre project site includes approximately 70 acres of Important Farmland, as indicated by the results of the Land Evaluation and Site Assessment modeling, as described in the Section 4.1 “Agricultural Resources. According to the EIR for the City General Plan (City of Stockton 2006:13-32), buildout of the City General Plan would result in the conversion of up to 32,520 acres of Important Farmland. The EIR concludes that conversion of

this farmland would be a significant and unavoidable impact. The proposed project would contribute to this conversion of farmland.

The loss of Important Farmland is considered a cumulatively considerable (i.e., significant) impact when considered in connection with the losses that would occur as a result of the proposed project; past farmland conversions; and planned future development proposed in the city, the surrounding cities, and the county as a whole. In a letter responding to the Notice of Preparation for this EIR, SJCOG invited the project proponent to be a third-party participant in the SJMSCP. Mitigation Measure(s) AG-1 requires the project proponent to pursue third-party participation and to contribute fees, on a per-acre basis, for agricultural lands that are developed. SJCOG would use these funds to purchase conservation easements on agricultural and habitat lands in the project vicinity. Alternatively, CPR may consult with the California Department of Fish and Game (DFG) regarding the purchase of appropriate conservation easements for Swainson’s hawk foraging habitat, which would also likely include similar farmland.

Preserving agricultural lands in perpetuity through the SJMSCP or purchasing a conservation easement, a portion of which consists of Important Farmland, would ensure the continued protection of farmland in the project vicinity, partially offsetting project impacts. However, this measure cannot fully and feasibly mitigate the proposed project’s cumulatively considerable contribution to the loss of agricultural land in San Joaquin County to below a level that is not considerable, because no new farmland would be created; rather, existing farmland would be protected. Therefore, the proposed project would contribute to an existing cumulatively considerable impact, and the project would result in a **significant and unavoidable** cumulative impact.

5.5.3 TRAFFIC AND CIRCULATION

Section 4.3, “Traffic and Circulation,” of this DEIR evaluates project-level and cumulative traffic impacts under three scenarios. The first analysis addresses the effects of the project on existing conditions. The second analyzes the aggregated project impacts on levels of service on traffic circulation and congestion given approved projects. The third analyzes the proposed project’s effects on the levels of service assuming buildout of the City of Stockton General Plan 2035. (Under the City of Stockton General Plan buildout scenario, the traffic projections used in the General Plan EIR were used, which are consistent with, but not necessarily the same as the projections developed for the Mariposa Lakes tentative subdivision map evaluation.) For the purposes of this cumulative impacts evaluation, the General Plan buildout conditions will be evaluated and not the mid-term-project plus approved projects scenario. General-Plan-buildout-cumulative impacts are addressed in Impacts TRAF-6 and TRAF-7 and summarized in this section. Impact TRAF-8 analyzes cumulative impacts on freeway mainline levels of service under 2035 buildout conditions and are summarized in this section.

Under the no project—2035 City General Plan buildout traffic scenario, the study intersection of State Route 99 and Arch Road and the intersection of Austin Road and Arch Road would operate below the city’s minimum service LOS (LOS F and LOS E respectively). With the implementation of Mitigation Measures(s) for Impact TRAF-6, the project would increase delay at these intersections more than 5 seconds (the City’s threshold for intersections operating below the LOS D). Because there is a predicted cumulative significant impact on traffic circulation at buildout of the City General Plan buildout and the project contributes to those adverse cumulative, the project is considered to have a considerably cumulative **significant and unavoidable** impact. The considerable cumulative impact on the intersection of State Route 99 and the intersection of Austin Road and Arch Road, even after mitigation is incorporated, would be **significant and unavoidable**. Please refer to Section 4.3, “Traffic and Circulation” for the mitigation measures for impacts to these intersections.

Under the no project—2035 City General Plan buildout traffic scenario, the road segment of Arch Road from Newcastle Road to the CTCA west driveway would operate at LOS F (below the city’s minimum service LOS). With the proposed project, including implementation of Mitigation Measures(s) for Impact TRAF-7, the LOS on this roadway segment would operate at LOS F. In addition, the proposed project traffic generation would result in the change of roadway segment LOS for Austin Road from Arch Road to the proposed project-site driveway to

LOS F from LOS E. Because there is a predicted cumulative significant impact on traffic circulation at buildout of the City General Plan 2035 and the project contributes to those adverse cumulative effects and north and south of Arch Road, the project is considered to have a considerably cumulative **significant and unavoidable** impact. The considerable cumulative impact on the road segment of Arch Road from Newcastle Road to the CTCA west driveway, even after mitigation is incorporated, would be **significant and unavoidable**. Please refer to Section 4.3, “Traffic and Circulation” for the mitigation measures for impacts to these intersections.

5.5.4 AIR QUALITY AND CLIMATE

SHORT-TERM CONSTRUCTION-RELATED IMPACTS

The San Joaquin Valley Air Pollution Control District (SJVAPCD) has established a significance threshold of 10 tons per year for emissions of the ozone precursors reactive organic gases (ROG) and oxides of nitrogen (NO_x). For respirable particulate matter with an aerodynamic diameter of 10 micrometers or less (PM₁₀), SJVAPCD requires project applicants to implement effective and comprehensive control measures and comply with applicable rules and regulations (e.g., Regulation VII of Rule 9510, “Indirect Source Review”) rather than quantifying construction emissions in detail. Although the proposed project would be required by law to comply with Regulation VIII, “Fugitive Dust PM₁₀ Prohibitions,” additional control measures recommended by SJVAPCD that would be applicable to and feasible for the proposed project are not currently part of the project description. Thus, emissions of fugitive dust during project construction could violate or contribute substantially to an existing or projected air quality violation, and/or expose sensitive receptors to substantial pollutant concentrations. In addition, because San Joaquin County is currently designated as a nonattainment area for ozone, PM₁₀, and fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less (PM_{2.5}), construction-generated emissions could contribute cumulatively to pollutant concentrations that exceed California ambient air quality standards.

Implementation of mitigation identified in Section 4.4 would reduce construction-related impacts from emissions of PM₁₀ to a less-than-significant level. Assuming that all related projects also implement all feasible construction emission control measures consistent with SJVAPCD guidelines and regulations, construction emissions from related projects may be less than significant, although it is likely that larger projects would result in significant and unavoidable air quality impacts on their own. However, given the scale of development that would occur with the related projects combined with the nonattainment status of the San Joaquin Valley Air Basin (SJVAB) for ozone, PM₁₀, and PM_{2.5}, the proposed project would likely result in a cumulatively considerable construction-related air quality impact. The EIR includes all available feasible mitigation to reduce the project’s contribution to cumulative air quality impacts; see Section 4.4. However, although mitigation measures would substantially reduce air emissions from the project, they are not sufficient to reduce the project’s cumulative contribution to below a level that is considerable.

The SJVAB is in nonattainment status for ozone, PM₁₀, and PM_{2.5}. This is a result of past cumulative development in the basin, as well as transport of pollutants from other basins. New development, including the project, would be required to comply with SJVAPCD measures that would reduce potential new construction emissions of these pollutants. However, adding construction of related projects to a cumulatively adverse condition would exacerbate air quality impacts. The contribution of the proposed project to this impact, though mitigated to the extent feasible (see Section 4.4), would be considerable. Therefore, this impact would be **significant and unavoidable**.

LONG-TERM OPERATIONAL IMPACTS

Long-term operation of the proposed project would result in regional emissions of ROG, NO_x, PM₁₀, and PM_{2.5} from area, stationary, and mobile sources. With implementation of mitigation measures in Section 4.4, emissions generated during long-term project operations would not exceed SJVAPCD’s significance thresholds for ROG and NO_x, and would not generate substantial operational emissions of PM₁₀ or toxic air contaminants. Further, the City General Plan designates the site for institutional uses; air quality attainment plans, which are required to

reach attainment of federal and state air quality standards, are based in part on the land use plans for the agencies that are part of the air district. Consequently, the proposed project would not contribute to an increase in regional emissions that conflicts with the budget used for regional air quality planning.

Implementation of the proposed project would not result in a significant and unavoidable project-level impact. Further, it would comply with growth projections in the air quality attainment plan and would be required to implement all feasible measures in the plan aimed at attaining long-term air quality standards. The project's contribution to nonattainment of air quality standards would therefore not be considerable. The project would result in a **less-than-significant** cumulative air quality impact.

CLIMATE CHANGE

No known individual project can generate enough greenhouse gas (GHG) emissions to significantly influence global climate change. The proposed project would participate in this potential impact through its incremental contribution, which when combined with the cumulative contributions of all other sources of GHGs would cause global climate change impacts. See Section 4.4, "Air Quality," for a discussion of the existing physical and regulatory setting related to climate change and GHG emissions.

The following discussion reviews the project's potential generation of GHGs and its incremental contribution to the cumulative effect resulting from emissions of GHGs. A two-tiered approach is used below, as follows: (1) a discussion of project-generated GHG emissions and (2) project compliance with applicable state legislation.

Project-Generated Greenhouse Gas Emissions

Short-term construction and long-term operation of the proposed project would generate emissions of GHGs. Construction emissions would be associated with vehicle engine exhaust from construction equipment, vendor trips, and employee commute trips. Operational emissions would be associated with area, mobile, and stationary sources. Area-source emissions would be associated with activities such as use of natural gas, maintenance of landscaping and grounds, and other sources. Mobile-source emissions of GHGs would include project-generated vehicle trips associated with visitors, employees, and deliveries to the project site. In addition, stationary-source emissions could increase at off-site utility providers associated with electricity generation and water distribution that would supply the proposed project.

GHG emissions generated by the proposed project would consist primarily of carbon dioxide (CO₂). CO₂ emissions persist in the atmosphere substantially longer than criteria air pollutants, such as ozone and PM₁₀. Although emissions of other GHGs, such as methane, are important with respect to global climate change, emissions levels of other GHGs are less dependent than CO₂ emissions on the land use and circulation patterns associated with the proposed land use development project.

Buildout of the proposed project would add approximately 3,570 vehicle trips per day to the project area (DKS Associates 2008). If the total trips and the GHG emissions from area sources and off-site stationary sources are considered, project operation would generate total GHG emissions of approximately 29,570 metric tons of carbon dioxide equivalent (CO₂e) annually during the lifetime of the project. Project construction would generate approximately 12,250, 36,050, and 4,850 metric tons of CO₂ in 2009, 2010, and 2011, respectively (refer to Table 5-3). Construction would contribute GHG emissions to a much lesser extent than operation of the proposed project, for which emissions occur annually over the lifetime of the project.

Context: Project Emissions and Assembly Bill 32 Goals

This mass of project-generated GHG emissions would appear miniscule in comparison to the state or global inventory; however, this type of comparison serves only to minimize the cumulative nature of this impact. For this reason, it is important to consider an appropriate context for GHG emissions. GHG emissions are dispersed

throughout the atmosphere worldwide, and the effects of climate change are borne globally, unlike emissions of criteria air pollutants and precursors, which have regional and/or local impacts on air quality.

No air district or other regulatory agency in California, including SJVAPCD, has officially adopted a significance threshold for GHG generation by land use development projects to assess the level at which a project’s incremental contribution is cumulatively considerable. As discussed in Section 4.4, although the text of Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, focuses on major stationary and area sources of GHG emissions, the primary objective of the act is to reduce California’s contribution to global warming by reducing California’s total annual production of GHG emissions. AB 32 requires in law (California Health and Safety Code, Sections 38500–38599) a reduction in California’s GHG emissions to 1990 levels by 2020. The Intergovernmental Panel on Climate Change has concluded that if worldwide GHG emissions are reduced to 1990 levels, dangerous climate change would be avoided. (Climate change itself would not be avoided, but the rate of change would be more manageable.) Thus, AB 32 establishes targets for California to do its “fair share” to reduce its contribution to potentially dangerous climate change effects. Thus, consistency with the state’s requirements in AB 32 for GHG emissions reductions is the best metric for determining whether the proposed project would contribute considerably to global warming.

**Table 5-3
Summary of Modeled Greenhouse Gas (Carbon Dioxide Equivalent) Emissions**

Source	CO ₂ e Emissions
Direct Construction Emissions	Metric tons¹
2009	13,875
2010	38,620
2011	5,190
Direct and Indirect Operational Emissions	Metric tons per year¹
Area-Source Emissions	1,845
Mobile-Source Emissions	4,870
Energy Consumption On-Site ²	23,070
Water Consumption (energy for conveyance, treatment, distribution, and wastewater treatment)	496
Total Annual Emissions	30,281

Notes:

CO₂e = carbon dioxide equivalent

¹ Construction, area-source, and mobile-source emissions were modeled using the URBEMIS 2007 (v. 9.2.4) (Rimpo and Associates 2008) computer model, based on trip generation rates contained in the traffic analysis prepared for the project (DKS Associates 2008) and proposed land uses identified in Chapter 3, “Project Description,” of this EIR. Default model assumptions were used where detailed information was not available. URBEMIS accounts for emissions from vehicles and use of natural gas. URBEMIS output is in units of tons of CO₂ per year, whereas a standard unit for reporting greenhouse gas (GHG) emissions is in metric tons of CO₂e per year. CO₂ emissions were increased by 5% to account for other GHGs, and tons were converted to metric tons using the factor of 0.91 metric ton per ton.

² Indirect emissions associated with stationary sources (increased energy consumption) were calculated using the California Climate Action Registry’s General Reporting Protocol (v. 3.0) and the assumption of 63,118,632 kilowatt-hours per year for electrical use.

The values presented in above do not include the full life cycle of GHG emissions that may occur during the production and transport of materials used during construction of the proposed project, disposal of solid waste over the life of the project, or end of life of the materials and processes that would contribute to GHG emissions that occur as an indirect result of the project. Doing so would be speculative and would require analysis beyond the current state of the art in impact assessment and would lead to a false and misleading level of precision in reporting of project-related GHG emissions. Further, indirect emissions associated with in-state energy production, solid-waste disposal, and wastewater treatment would be regulated under Assembly Bill (AB) 32 at the source or facility that would handle these processes. The emissions associated with off-site facilities in California would be closely controlled, reported, capped, and traded under AB 32 and California Air Resources Board programs. Therefore, this category of emissions would be consistent with AB 32 requirements.

Refer to Appendix C for detailed assumptions and modeling output files.

Source: Data modeled by EDAW in 2008

AB 32 required that the California Air Resources Board (ARB) determine what the statewide GHG emissions level was in 1990 and approve a statewide GHG emissions limit that is equivalent to that level, to be achieved by 2020. This emissions level would have to be accomplished with 30 years (1990–2020) of population and economic growth in place. Effectively, California will need to be more GHG-efficient in all areas to achieve this mandate; to achieve AB 32 emissions goals for 2020, the state would have to reduce its GHG emissions by an average of 30% compared to “business as usual.” In other words, if a housing tract would generate 100 metric tons of CO₂e per year using conventional building and design methods, it would need to reduce its emissions to 70 metric tons per year to be consistent with the total GHG reductions needed across California to attain AB 32 goals. Note that this does not suggest that a project would need to produce less than zero GHGs; rather, AB 32 establishes a mandate that California’s *overall* GHG production be reduced, and the only way that can be accomplished is to reduce the amount of GHGs produced per capita through new technologies, controls, and efficiency of new uses. As described above, it would appear that GHGs would need to be reduced by 30% per capita by 2020, compared with business as usual, and that is the metric used here to determine whether the proposed project would contribute considerably to cumulative GHG emissions and associated global climate change. This per-capita reduction is supported by data in the draft ARB scoping report (ARB 2008).

Determining Whether the Project’s Contribution of GHG Emissions is Considerable

Development of a medical health facility is not its own “sector” for purposes of determining GHG emissions from projects, but it draws on emissions from the energy, transportation, and manufacturing sectors. Regulations to be adopted in compliance with AB 32 will require all sectors to implement measures and programs to make them more GHG-efficient. To the extent that project facilities can accommodate facility staff members, visitors, and vendors in a way that reduces GHG emissions compared with business as usual, the proposed project can do its part to help California attain the goals of AB 32 and consequently not contribute considerably to GHG emissions.

The California Energy Commission has developed standard emissions factors for various land use types, based on a comprehensive study of energy use by building sectors in California. The closest building sector to the proposed project found in the survey is “health building.” Based on this sector, a project of 1.2 million square feet, the approximate size of the proposed project, would generate 8,600 metric tons of CO₂e per year for indirect energy consumption from the grid associated with on-site heating, cooling, and operations (CEC 2006). This is the best available information, and for the purposes of this analysis, it is considered the business-as-usual model to compare with the proposed project in terms of emissions from medical health facilities. The amounts of GHG emissions that would be generated by the other types of sources (e.g., mobile sources) in projects of this type and size under business as usual can be taken from the information presented in Table 5-3. The emissions levels listed in Table 5-3 were estimated based on average trip generation for staff members, visitors, and deliveries based on the number of proposed beds. Thus, if the calculated business-as-usual emissions level from indirect energy consumption (8,600 metric tons of CO₂e per year) is added to the other types of emissions associated with the operation of a source of this type and size (see Table 5-3), the total amount of GHGs generated under a business-as-usual scenario would be approximately 15,811 metric tons per year. This is not to suggest that the proposed project would be more or less efficient than the average “health building”; rather, the health building is the only building type that is similar in type and included in the study (hospitals were not included because great variability exists among hospitals and some hospitals use cogeneration power plants).

Long-term operation of the proposed project, by comparison, would generate 23,070 tons of CO₂e per year indirectly from energy consumption off the grid, and 30,281 total metric tons of CO₂e per year from all sources. This is more than twice the business-as-usual calculation, based on the California Energy Commission study (CEC 2006).

SJVAPCD Rule 9510, “Indirect Source Review,” requires that projects reduce operational emissions of NO_x by 33.3% compared with baseline projections. As stated in Rule 9510, baseline emissions are the “unmitigated emissions of NO_x as calculated by the Air Pollution Control Officer-approved model” (e.g., URBEMIS). Within

the URBEMIS model, unmitigated emissions are based on default model settings (e.g., average trip generation rates and lengths), which correlates with the business-as-usual concept within AB 32.

As discussed in Section 4.4 of this EIR, compliance with Rule 9510, which would be required by law, would serve to reduce operational emissions of ozone precursors by 33.3%, on- or off-site. The rule requires project applicants, including CPR, to select from a variety of programs, including energy-reducing design and carpools/vanpools, to demonstrate that the project would attain a 33.3% reduction in emissions compared with the baseline. If feasible programs would not result in this reduction, the project applicant must pay a fee that would be used to offset emissions at other sources, at a rate equal to the difference between the reductions the project could attain and the overall 33.3% target. A close correlation exists between emissions of ozone precursors and emissions of GHGs from mobile, area, and stationary sources since both are products of fuel combustion. Therefore, it is reasonable to expect that the manner in which ozone precursor emissions would be reduced would also reduce GHG emissions to a similar extent. However, as shown in Table 5-3, unlike emissions in typical development, the modeled indirect emissions of GHGs from on-site energy consumption comprise a majority of the total project-generated emissions, far outweighing those from mobile sources (by almost five times). The modeling conducted indicates that the proposed project, even considering compliance with SJVAPCD Rule 9510, would not operate at a 30% more efficient rate in comparison to business as usual for these types of uses. Even with an across-the-board 33.3% reduction in all emissions at the site, and assuming a direct correlation between ozone precursors and GHG emissions (which is a reasonable assumption, because reducing ozone precursors similarly reduces GHGs), the proposed project would generate nearly 20,000 metric tons per year of GHGs, approximately 1.4 times the business-as-usual scenario.

Given that the AB 32 target, as applied to the proposed project, would translate to a 30% reduction in emissions from business as usual, or 9,633 metric tons of CO₂e per year (13,761 metric tons of CO₂e x 70%), the proposed project would result in a considerable contribution to the significant cumulative impact of global climate change.

To establish additional context in which to consider the order of magnitude of project-generated GHG emissions, it may be noted that facilities (i.e., stationary sources of GHG emissions) that generate more than 25,000 metric tons of CO₂ per year are mandated to report GHG emissions to ARB under AB 32. In this context, which is presented for informational purposes only, the proposed project's annual operational emissions (unmitigated) would appear substantial. However, these requirements apply to stationary combustion sources of GHG emissions and should not be treated as a numeric threshold applicable to development projects.

MITIGATION MEASURES

Implementation of the mitigation measure for Impact AIR-2, which would reduce operational emissions of criteria air pollutants and precursors, would also act to reduce GHG emissions associated with project operation. This mitigation measure is relevant to Impact AIR-2 because emissions of both criteria air pollutants and GHGs are frequently associated with combustion byproducts. In addition, CPR will implement where feasible the following measures to reduce direct and indirect GHG emissions associated with the proposed project. Certain measures could already be considered components of the project, but are provided here for purposes of completeness.

A. Energy Efficiency

- ▶ Design buildings to be energy efficient. Site buildings to take advantage of shade, prevailing winds, landscaping and sun screens to reduce energy use.
- ▶ Install efficient lighting and lighting control systems. Use daylight as an integral part of lighting systems in buildings.
- ▶ Install light-colored “cool” roofs, cool pavements, and strategically placed shade trees (consistent with mitigation requirements for biological resources in connection with operation of the electrified fences).

- ▶ Install energy-efficient heating and cooling systems, appliances and equipment, and control systems.

B. Renewable Energy

- ▶ Install solar and wind power systems, solar and tankless hot water heaters, and energy-efficient heating ventilation and air conditioning.
- ▶ Improve the thermal integrity of buildings, and reduce the thermal load with automated time clocks or occupant sensors.
- ▶ Install solar panels over parking areas.

C. Water Conservation and Efficiency

- ▶ Create water-efficient landscapes with native, drought-resistant species.
- ▶ Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls.
- ▶ Design buildings to be water-efficient. Install water-efficient fixtures and appliances.
- ▶ Restrict watering methods (e.g., prohibit systems that apply water to nonvegetated surfaces) and control runoff.
- ▶ Restrict the use of water for cleaning outdoor surfaces and vehicles.
- ▶ Provide education about water conservation and available programs and incentives.

D. Solid Waste Measures

- ▶ Reuse and recycle construction and demolition waste (including but not limited to soil, vegetation, concrete, lumber, metal, and cardboard).
- ▶ Provide interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas.

E. Transportation and Motor Vehicles

- ▶ Limit idling time for commercial vehicles to five minutes, including delivery and construction vehicles.
- ▶ Promote ridesharing programs, e.g., by designating a certain percentage of parking spaces for ridesharing vehicles, designating adequate passenger loading and unloading and waiting areas for ridesharing vehicles, and providing a Web site or message board for coordinating rides.
- ▶ Create car-sharing programs. Accommodations for such programs include providing parking spaces for the car-share vehicles at convenient locations.
- ▶ Provide the necessary facilities and infrastructure to encourage the use of low- or zero-emission vehicles (e.g., electric-vehicle charging facilities).
- ▶ Provide shuttle service to public transit.
- ▶ Provide public transit incentives such as free or low-cost monthly transit passes.
- ▶ Join a local transportation management association and prepare employer-based trip reduction plans

SIGNIFICANCE AFTER MITIGATION

Implementation of the above measures would reduce project-generated GHGs, but the exact amount of reduction cannot be quantified at this time. Thus, the generation of GHG emissions from the proposed project would still

result in a considerable contribution to the significant cumulative impact of global climate change. The project's impact would therefore be **significant and unavoidable**.

5.5.5 NOISE

SHORT-TERM CONSTRUCTION-RELATED IMPACTS

Construction work would result in site-specific noise impacts. However, construction activities associated with the California Conservation Corps (CCC) and Northern California Re-Entry Facility (NCRF) projects, which could overlap with construction of the proposed project, are within close proximity (i.e., 1,000 feet) to the proposed project such that these construction activities could cumulatively combine with noise from the project. The proposed project would result in significant construction-related noise impacts. These impacts could be exacerbated by overlapping construction activities by the CCC project and the NCRF project. Therefore, the proposed project would contribute to a cumulatively considerable (though short-term) impact, and the impact would be **significant and unavoidable**. All feasible measures available to reduce the contribution of the proposed project to this impact are considered in Section 4.5 of this EIR.

LONG-TERM OPERATIONAL IMPACTS

Section 4.5, "Noise," includes an analysis of operational impacts, including increased roadway noise under cumulative 2035 conditions, which includes anticipated roadway volumes at buildout of the City General Plan, as well as traffic generated from related projects. Although the proposed project would not, by itself, result in a significant increase in roadway noise levels under 2035 conditions, the project-related traffic would contribute to an existing cumulatively considerable noise impact along Arch Road and Austin Road. This impact would be **significant and unavoidable**. All feasible measures available to reduce the contribution of the proposed project to this impact are considered in Section 4.5 of this EIR.

5.5.6 HYDROLOGY AND WATER QUALITY

WATER QUALITY

Overall water quality in the region has degraded over time as natural habitat has been converted to farmland and urban uses, and these uses have caused various pollutants to run off into local and regional waterways. A variety of programs have been implemented with the goal of halting degradation of water quality and reversing this trend. Several federal and state agencies are involved in these programs, many of which come from the federal Clean Water Act.

The proposed project would result in surface disturbance through ground scraping, grading, trenching, and compaction associated with typical development activities. Existing vegetation would be removed, thereby increasing the potential for erosion. Construction activities and proposed land uses (e.g., roadways, parking areas) would generate atmospheric pollution, tire-wear residues, petroleum products, and oil and grease, which would be carried in stormwater runoff on the project site. These constituents could enter the storm drainage system and adversely affect water quality. However, CPR would comply with all relevant requirements of a storm water pollution prevention plan as mandated by the Central Valley Regional Water Quality Control Board. The plan would require the permittee to implement best management practices and other water quality protection measures to sufficiently reduce the project's potential impacts on surface-water quality during construction. It is assumed, given the presence of numerous regulatory programs, that other cumulative developments would be required to implement similar water quality protection measures. With implementation of these measures, cumulative impacts on water quality would be less than significant and the project's contribution to these impacts would not be considerable.

Because CPR would implement mitigation to reduce the proposed project's impact on stormwater quality and other cumulative development would be required to implement similar mitigation to prevent water quality degradation, the contribution of the proposed project to stormwater impacts would not be cumulatively considerable, and cumulative stormwater impacts would be **less than significant**.

STORMWATER DRAINAGE

Final designs and specifications of the proposed project's drainage system are currently being prepared. The drainage system will be designed to appropriately accommodate the stormwater runoff generated from the proposed project during a 100-year storm event. The design for the proposed expansion of the detention basin would ensure that no increases in stormwater discharge would enter Littlejohns Creek. Therefore, the proposed project would not substantially increase the rate or amount of surface runoff in a manner that would result in on- or off-site flooding, and the impact would be **less than significant**.

The proposed project would provide adequate stormwater drainage facilities on the project site, and these facilities would serve only the proposed project. Therefore, the project would not result in a considerable contribution to any cumulative impacts on storm drainage facilities, and the impact would be **less than significant**.

FLOODING

The proposed project would provide stormwater facilities adequate to ensure that the project would not result in the substantial flooding of on- or off-site areas. In addition, the Federal Emergency Management Agency's 2002 Flood Insurance Rate Map indicates that the proposed project and the off-site components of the proposed drainage system are located within Zone C, which is defined as "areas of minimal flooding," and are therefore not located within the 100-year flood zone.

The proposed project would be located outside the 100-year floodplain and the project would not result in substantial flooding of on- or off-site areas. Therefore, the proposed project would not result in a considerable contribution to any cumulative flooding impacts, and the impact would be **less than significant**.

5.5.7 BIOLOGICAL RESOURCES

Past development in San Joaquin County, ranging from the conversions of land to agricultural production more than 100 years ago to recent development projects, has converted substantial amounts of native habitat to other uses. Although future projects would be expected to mitigate impacts on threatened and endangered species and other biological resources that are provided regulatory protections, many types of habitats and species are provided no protection, and it can be expected that a net loss of native lands, agricultural lands, and open space areas that provide value to biological resources will continue.

The proposed project would result in potentially significant impacts related to the potential take of special-status species as a result of project construction and operation of the lethal electrified fence, as well as the loss of Swainson's hawk (and potentially burrowing owl) foraging habitat as a result of the conversion of agricultural land to urban uses. These impacts would be reduced to a less-than-significant level with implementation of mitigation measures identified in Section 4.7, "Biological Resources."

Implementation of the proposed project could result in the loss of giant garter snakes; loss of burrowing owls; mortality, loss, or abandonment of occupied nests of Swainson's hawks or other nesting raptors; and loss of approximately 90 acres of Swainson's hawk foraging habitat. The SJMSCP anticipates conversion of up to approximately 109,300 acres of open space land to non-open space uses in the county between 2001 and 2051. The proposed project and related projects in Stockton would contribute to this countywide conversion.

The SJMSCP was developed to minimize and mitigate impacts on plant and wildlife habitat (and associated species) resulting from this regional loss of open space. The SJMSCP seeks to compensate for such conversion by preserving agricultural lands and preserving and creating natural habitats to be managed in perpetuity through the establishment of conservation easements and preserves. The goal of the SJMSCP is to provide approximately 101,000 acres of agricultural and habitat preserve. The SJMSCP concludes that this would adequately compensate for cumulative impacts on plant and wildlife species covered by the plan. Therefore, cumulative impacts on biological resources covered under the SJMSCP would be less than significant.

However, because the proposed project is not identified under the SJMSCP, CPR must apply as a third-party participant. Because it is not certain that SJCOG would approve CPR's participation, separate measures are identified in Section 4.7 of this EIR that would mitigate impacts on special-status species and foraging habitat to a less-than-significant level. Section 4.7 also includes mitigation of potential impacts on jurisdictional waters associated with expanding capacity of the existing detention basin. Impacts on jurisdictional waters are mitigated with implementation of mitigation measures in Section 4.7. Therefore, no cumulative loss of wetlands or impacts on jurisdictional waters would occur.

Because the project proponent CPR will seek third-party participation in the SJMSCP and implement mitigation measures to reduce impacts on special-status wildlife, plant, and aquatic species and/or habitat areas outside of the SJMSCP and would compensate for impacts on USACE jurisdictional wetlands, the proposed project and related projects would not incrementally contribute to a significant cumulative impact on biological resources. The impact would be **less than significant**.

5.5.8 CULTURAL RESOURCES

As described in Section 4.8, "Cultural Resources," the proposed project could result in significant impacts on undiscovered cultural resources; however, because of the existing regulations (Section 106 of the National Historic Preservation Act, state, and local regulations), these impacts are required to be reduced a less-than-adverse-effect on each project, including the proposed project (which would have no cultural resource impacts). Therefore, there would be no existing cumulative impact on cultural resources and the proposed project would not cause an impact on cultural resources to become cumulatively considerable. The proposed project would result in a **less-than-significant** cumulative impact.

5.5.9 GEOLOGY AND PALEONTOLOGY

GEOLOGY

Construction of the proposed project would conform to the current California Building Code and International Building Code, which contain specifications to reduce adverse effects on structures caused by earthquake-related ground shaking and to minimize secondary seismic hazards. By conforming to these building codes and implementing site-specific engineering measures developed in compliance with these codes, the proposed project would not expose people or structures to substantial adverse effects related to seismic hazards. The soils on the project site are subject to high shrink-swell potential. As described in Section 4.9, "Geology and Paleontology," CPR would complete soils studies and implement construction and design measures developed in response to the studies. Implementation of these mitigation measures would reduce the impacts related to earthquake-related ground shaking and secondary seismic hazards to a less-than-significant level.

Implementation of the various related projects and other projects in the region could expose additional structures and people to seismic and soils hazards. The potential hazards could represent a significant cumulative impact if projects are not developed to the latest building standards and do not incorporate recommendations from site-specific geotechnical reports and grading/erosion plans prepared for these projects. However, each project considered in this cumulative analysis must individually meet building code requirements, and no aggregate effect would result from combining the proposed project and the related projects of this cumulative analysis.

For these reasons, no significant cumulative impact related to seismic or soil hazards would occur. Implementing the proposed project would not create additional facilities under increased risk of hazards and would not result in any cumulatively considerable incremental contributions to any significant cumulative impacts. The impact would be **less than significant**.

PALEONTOLOGY

As-yet-undiscovered paleontological resources could underlie the project site and related project sites. Mitigation measures are contained in Section 4.9, “Geology and Paleontology,” to reduce impacts on previously undiscovered paleontological resources to a less-than-significant level. Fossils are being discovered during development-related excavation and earthmoving activities with increasing frequency throughout the state. However, unique, scientifically important fossil discoveries are relatively rare, and the likelihood of encountering them is based on the type of specific rock formations found underground. These rock formations vary from location to location. Furthermore, when unique, scientifically important fossils are encountered by construction activities, the subsequent opportunities for data collection and study generally provide a benefit to the scientific community.

Because of the low probability that any project would encounter unique, scientifically important fossils, and because of the benefits that would occur from recovery and further study of those fossils if encountered, development of the related projects and other development in the region is not considered to result in a significant cumulative impact on paleontological resources. Therefore, the proposed project would result in a **less-than-significant** impact.

5.5.10 HAZARDS AND HAZARDOUS MATERIALS

The proposed project and related projects would all involve the storage, use, disposal, and transport of hazardous materials to varying degrees during construction and operation. Such activities are extensively regulated by various federal, state, and local agencies, and CPR and project operators would implement and comply with these existing hazardous materials regulations. Therefore, the regulatory regime ensures that substantial hazards to the public would not occur, and that impacts of the proposed project related to hazardous materials would be less than significant.

Because these laws and regulations would also apply to each related project, this impact would be **less than significant** on both an individual project and cumulative basis. Furthermore, although other related projects may include remediation of contaminated soils and demolition of structures that contain hazardous materials, these impacts are site specific and would not be cumulatively considerable.

5.5.11 POPULATION AND HOUSING

As described in Section 4.11 “Population and Housing,” the City of Stockton has approved 17,097 dwelling units. Using the California Department of Finance’s estimate of 3.087 people per household in the city of Stockton, the addition of 17,097 units would result in a direct population increase of 52,778. In addition, the combined populations of San Joaquin and Sacramento Counties are anticipated to increase by approximately 1 million people in the next 22 years. The new facility would provide employment opportunities for correctional officers, physicians, nurses, miscellaneous medical staff members, medical therapists, and administrative, clerical, and program support staff members. The proposed medical and mental healthcare facility would employ between 2,400 and 3,000 people (for purposes of this analysis, population and housing estimates were based on the maximum number of 3,000 new employees). As noted in Section 4.11 of this EIR, because of the high demand for medical professionals, the nature of correctional assignments, and the increased demand for correctional officers due to the planned expansion of the county jail, a large number of the project’s correctional and medical staff members may relocate to the region from outlying areas. Stockton would be expected to receive the largest project-related population increase. However, this population increase would be indistinguishable from the

growth currently anticipated for the region. In addition, the employment-related population growth resulting from the proposed project would overlap with the population growth resulting from the approved residential projects in the city, because the new housing provided by the residential projects would accommodate the project's increased population. Ample housing exists throughout the region, outside of Stockton, especially given the current slowdown in the housing market in the nation (including a substantial number of foreclosures in this region). Therefore, the proposed project would not stimulate new development, the construction of which could result in significant environmental impacts. This impact would be less than significant.

Because population increases are assumed in large residential projects in the region, these housing projects would absorb the employment-generated population increase resulting from the proposed project, and the project's contribution would not be cumulatively considerable. The impact would therefore be **less than significant**.

5.5.12 PUBLIC SERVICES

POLICE AND FIRE SERVICES

Cumulative development would concentrate persons and structures within local school districts and police and fire jurisdictions. It is anticipated that local jurisdictions would require all new cumulative development to provide or fund the necessary school, police, fire, and emergency response services to serve those developments, consistent with relevant local policies addressing these issues. As described in Section 4.12, "Public Services," the proposed project would utilize existing NCYCC fire response personnel, and law enforcement would be provided by the correctional personnel who would staff the facilities at all times. Although assistance from other local fire, law enforcement, and emergency response agencies could be required if an incident at the site were to exceed the capabilities of on-site personnel and facilities, this backup assistance is currently provided for the NCYCC by these agencies, and the proposed project would not be expected to substantially increase the ability of these agencies to provide this backup assistance.

In addition, the proposed project would generate employment that would increase population throughout the region. Local municipalities typically use property taxes and other taxes to pay for fire and police services provided to communities. Furthermore, new residential development that would meet the increased housing demand generated by the proposed project would pay local impact fees that would help fund local fire protection and law enforcement facilities.

Therefore, the contribution of the proposed project to cumulative police, fire, and emergency services would not be considerable, and the impacts would be **less than significant**.

5.5.13 WATER SUPPLY

The proposed project would increase the demand on the existing water supply available to the City of Stockton Metropolitan Area by approximately 444 acre-feet per year. It is anticipated that City water supplies are available to meet the proposed project's water demand in the short term before the construction and operation of Delta Water Supply Project (DWSP) facilities (currently estimated at 2010 or 2011). The DWSP is currently proceeding through its final permitting stages, with only a U.S. Clean Water Act Section 404 (through the U.S. Army Corps of Engineers) and a California Fish and Game Code Section 2081 (take permit, Delta smelt) permit pending. City of Stockton staff have been actively pursuing these permits, and have expressed it is reasonable to expect that the permits will be granted in the next few months. No major impediments are foreseen. The City is going out to bid on the first phase (30 33,600 afy) of the DWSP in early 2009. The project will be funded through a combination of water user fees and bonding that will be procured by the City. Because the DWSP EIR has been certified and the DWSP project has been approved and is expected to be under construction in the next year, the City considers the DWSP a reliable source of future long-term water supply. The proposed project would be served by the City's municipal supply, which is provided through existing water rights and entitlements available to the city, including groundwater. The DWSP will add to this source and will, in conjunction with existing City sources, provide

adequate water to serve cumulative development over the next 20+ years (at least through the period of implementation of the City General Plan [i.e., through 2035]). No additional entitlements or resources are required for the proposed project. Therefore, this impact would be less than significant. The proposed project would not result in a cumulative impact on water supply that has not already been analyzed in the EIR for the City General Plan or the DWSP EIR. This impact would be **less than significant**.

5.5.14 PUBLIC UTILITIES

WASTEWATER TREATMENT AND DISPOSAL

Collected wastewater flows from the NCYCC would continue to be transported to the Stockton Regional Wastewater Control Facility for treatment and disposal. The agreement between the City and the NCYCC allows for 0.80 million gallons per day (mgd) maximum daily flow and 1,400 gallons per minute (gpm) peak instantaneous flow. This agreement will expire in 2014. The project is anticipated to result in a maximum daily wastewater flow of 0.40 mgd (combined with existing NCYCC flows) and the project includes a sewer pump station that will include a wet well or temporary sewage storage facility that will attenuate peak sewage flows and ensure that the flows do not exceed the agreed upon maximum daily flow of 1,400 gpm. The proposed medical facility would likely include extensive water conservation devices that could substantially reduce the wastewater discharge; however, because these devices are currently unknown, no reduction is assumed in this analysis and these flow rates are considered very conservative. In addition, the RWCF has the capacity to treat 55 mgd of effluent and currently treats 31.7 mgd, suggesting that the facility has available capacity to accommodate flows from the proposed project. Therefore, the proposed project would not, either individually or in combination with other development, require the expansion of existing wastewater treatment facilities, and the project would not result in a cumulatively considerable impact. The impact would be **less than significant**.

SOLID WASTE, ELECTRICITY, AND NATURAL GAS

The proposed project would not substantially affect the disposal capacity of local solid-waste agencies. The project in combination with cumulative development would increase demands for solid-waste disposal capacity; however, substantial capacity is available in local landfill facilities to meet this demand. Because the proposed project would not substantially affect the disposal capacity of local landfills, and substantial capacity is available to accommodate solid waste from cumulative development, the project would have a **less-than-significant** cumulative impact on solid waste disposal facilities.

Implementation of the proposed project would result in an increase in electrical demands at the NCYCC facility. Although electricity demands have not been fully determined, two recent reports suggest that electrical demand could be up to 19 megawatts (MW). As the project development process has progressed, it has been estimated that operation of the facility would require between 9 MW and 12 MW of electricity. The specific amount of electricity needed to operate the medical facility will be known when project design is complete. Although Pacific Gas and Electric Company (PG&E) may need to expand facilities to distribute power to the proposed project, these improvements would occur along existing PG&E rights-of-way, and upgrading the electrical distribution system does not affect PG&E's ability to serve existing and future development in the region. Therefore, the proposed project would not result in a cumulatively considerable impact related to electricity, and the project would result in a **less-than-significant** impact.

Implementation of the proposed project would result in an increase in demand for natural gas. PG&E facilities are not expected to require upgrading to serve the proposed project. In addition, the proposed project would not limit PG&E's ability to serve other existing and future development in the region. Therefore, increased demand for natural gas resulting from project operations would not be cumulatively considerable and the impact would be **less than significant**.

5.5.15 VISUAL RESOURCES

Over time, development of past projects in the vicinity has transformed the area, first from natural habitat to farmland, and more recently to a combination of farmland, industrial, and correctional uses (the CTCA and NCYCC). The correctional uses (the CTCA and NCYCC) cast most of the light and glare in the area.

In general, the visual resources impacts of the cumulative projects are site specific; they would not result in changes to other project areas within the local viewshed. With the exception of the CCC project and the NCRF project, cumulative projects in the vicinity are either sufficiently distant from the project site or of small enough scale that they would not combine with the project's visual impacts of the proposed project. The CCC project would result in construction of a smaller institutional facility and would use similar nighttime lighting, and the NCRF would replace the existing, occupied CTCA facilities to the north of the site.

The proposed project and the CCC project would add outdoor pole-mounted lighting similar to standard parking lot lighting (no high-mast lighting would be included). This lighting would be considered a minor addition to the existing lighting at the NCYCC and CTCA, which currently includes high-mast lighting, and these projects would not result in a substantial increase in lighting levels. Although lighting levels would increase at the project site, as described in Section 4.15, "Visual Resources," this lighting would be a relatively minor addition to the existing lighting sources present at the NCYCC and the total lighting at both the CCC and the NCYCC. The proposed project in combination with the CCC project would not substantially increase the casting of skyglow. In addition, although the proposed project would result in a significant impact associated with nighttime glare at residences across Austin Road, the area's cumulative development would not be expected to affect these same residences; therefore, this impact, though individually significant, would not be cumulatively considerable.

Implementation of the proposed project in combination with cumulative development would not result in substantial changes to the local viewshed and to nighttime views in the surrounding area, because new lighting sources associated with the project and cumulative development would not substantially increase the casting of skyglow. Therefore, the impact of the proposed project would not be considered cumulatively considerable and would be **less than significant**.