Chapter 21
Public Services and Utilities

This chapter describes the environmental setting and study area for public services and utilities; analyzes impacts that could result from construction, operation, and maintenance of the project; and provides mitigation measures to reduce the effects of potentially significant impacts. This chapter also analyzes the impacts that could result from implementation of compensatory mitigation required for the project and describes any additional mitigation necessary to reduce those impacts, and analyzes the impacts that could result from other mitigation measures associated with other resource chapters in this Draft Environmental Impact Report (Draft EIR).

21.0 Summary Comparison of Alternatives

Table 21-0 provides a summary comparison of important impacts on public services and utilities by alternative. The table presents the CEQA findings after all mitigation is applied. If applicable, the table also presents quantitative results after all mitigation is applied. Important impacts to consider include public services including police protection, fire protection, public schools, and other public facilities and the generation of solid waste. All impacts would be less than significant for all alternatives.

Compensatory mitigation would be placed on Bouldin Island and three ponds along Interstate (I-) 5, and tidal wetland habitat would be created as part of the proposed Tidal Habitat Mitigation Framework. Activities would involve site inundation, some excavation to allow water entry, or grading for appropriate water levels.

Table ES-2 in the Executive Summary provides a summary of all impacts disclosed in this chapter.

Table 21-0. Comparison of Impacts on Public Services and Utilities by Alternative

	Alternative								
Chapter 21 – Public Services and Utilities	1	2a	2b	2c	3	4a	4b	4c	5
Impact UT-1: Result in Substantial Physical Impacts Associated with the Provision of, or the Need for, New or Physically Altered Governmental Facilities, the Construction of Which Could Cause Significant Environmental Impacts on Public Services Including Police Protection, Fire Protection, Public Schools, and Other Public Facilities (e.g., Libraries, Hospitals)	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS

Chapter 21 – Public Services and Utilities	Alternative 1	2a	2b	2c	3	4a	4b	4c	5
Impact UT-2: Require or Result in the Relocation or Construction of New or Expanded Service System Infrastructure, the Construction or Relocation of Which Could Cause Significant Environmental Impacts for Any Service Systems Such as Water, Wastewater Treatment, Stormwater Drainage, Electric Power Facilities, Natural Gas Facilities, and Telecommunications Facilities	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS
Impact UT-3: Exceed the Capacity of the Wastewater Treatment Provider(s) that Would Serve the Alternative's Anticipated Demand in Addition to the Provider's Existing Commitments	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS
Impact UT-4: Generate Solid Waste in Excess of Federal, State or Local Standards, or Be in Excess of the Capacity of Local Infrastructure, or Otherwise Impair the Attainment of Solid Waste Reduction Goals	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS

LTS = less than significant.

21.1 Environmental Setting

This section describes public services and utilities in the study area (the area in which impacts may occur) that could be affected by construction, operations, and maintenance of the project alternatives. Public services include law enforcement, fire protection and emergency response, hospitals and medical services facilities, public schools, and libraries. Utilities include solid waste management, water supply and treatment, wastewater treatment, energy (electricity and natural gas), and communications. Public services and utilities are provided throughout the study area by various entities including counties, cities, community services/special districts, and private companies.

21.1.1 Study Area

The study area evaluated for potential impacts on public services and utilities includes the project footprint. For purposes of this chapter, the study area also includes a 1-mile buffer zone around the project footprint boundary for most public service and utilities categories because services and utilities within 1 mile of the project footprint could be affected by construction-related access within service areas or a potential increase in service demand from construction or implementation of project alternatives. Two exceptions to the 1-mile buffer are hospitals and solid waste facilities. A 5-mile buffer zone around the study area boundary was used for hospitals. Because it is unknown which solid waste facilities would be used for disposal, solid waste facilities were identified based on proximity to the study area.

Response times for various public services are presented insofar as there may be staffing or response time goals in place. As noted in Appendix G of the CEQA Guidelines, construction of new or physically altered facilities in order to maintain acceptable service ratios or response times may result in significant environmental impacts.

21.1.1.1 Public Services

Law Enforcement

Law enforcement in the study area is provided by city police departments in incorporated areas and by county sheriff departments in unincorporated areas. State assistance is provided by the Valley Division of the California Highway Patrol and the California Department of Fish and Wildlife, each of which operates an office that serves the study area. Each of the counties in the Delta (except Alameda County) also has a marine patrol unit that is responsible for law enforcement on Delta waterways. The U.S. Coast Guard has a station in Rio Vista in Solano County and provides nautical enforcement in all the counties of the Delta. While the overarching responsibility of these agencies is to prevent and respond to criminal activity and apprehend suspects, they offer a variety of additional services to the community. These services include safety patrol, dispatch of safety personnel, detainment of adult and juvenile offenders, operation of correctional facilities, and security for judicial facilities.

Response times for the law enforcement agencies vary according to the size of patrol area, density of the population served, distance to the call area, traffic congestion, and call volume. Most law enforcement agencies have a staffing goal of 1.5 officers per 1,000 persons. Table 21A-1 in Appendix 21A, *Details of Public Services and Utilities*, identifies law enforcement facilities and stations within the study area, as well as the staffing goals and average response times for each agency. The Project Emergency Response Plan Technical Memorandum from Attachment F of the *Delta Conveyance Final Draft Engineering Project Report—Central and Eastern Options* (C-E EPR) has additional information about the police protection agencies and their capabilities (Delta Conveyance Design and Construction Authority 2022a). The Project Emergency Response Plan—Bethany Reservoir Alternative (Final Draft) Technical Memorandum of the *Delta Conveyance Final Draft Engineering Project Report—Bethany Reservoir Alternative* (Bethany EPR) (Delta Conveyance Design and Construction Authority 2022b) also has additional information about the police protection agencies and their capabilities related to Alternative 5. While many law enforcement agencies serve the study area, there are two police stations that are located within the 1-mile buffer. The City of Brentwood Police Department has a minimum staffing goal of at least one patrol/canine officer assigned to each beat on each shift (Brentwood Police Department 2021). The Port of Stockton Police Department aims to maintain full staffing (25 officers) for a port district with no residents (Salsedo pers. comm.). Figure 21-1 shows the law enforcement facilities within the study area; one police station and one substation are within the study area.

Fire Protection and Emergency Response

Fire protection and emergency response in the study area is provided by a variety of public and entities. Communities within the study area are provided fire protection, rescue, and emergency services by a combination of fire protection entities including cities, counties, fire protection

districts[1] (FPDs), volunteer fire departments, and supplemental services provided by the state. Portions of outlying areas of the study area receive fire protection from the California Department of Forestry and Fire Protection (CAL FIRE). This state agency provides emergency services, fire, medical, rescue, and disaster relief throughout California. While CAL FIRE does not have any fire stations within the study area, the agency does assist with emergencies in the unincorporated communities and State Responsibility Areas. State Responsibility Areas are the areas where the State of California (i.e., CAL FIRE) is responsible for the prevention and suppression of wildfires.

Within the study area, densely populated areas are served by municipal fire departments, and rural and unincorporated areas are served by many FPDs. Because population densities in the study area vary, some FPDs contain multiple fire stations, whereas other FPDs contract with nearby fire protection entities outside their district. Mutual aid agreements exist between many of the FPDs to ensure that sufficient workforce and equipment are available to respond to emergencies, regardless of where the emergency occurs.

FPDs are determined by county; within each county FPDs are established so that they can maintain a timely response. The Project Emergency Response Plan Technical Memoranda from the C-E EPR and the Bethany EPR have additional information about the fire protection agencies and their capabilities. Emergency response services are subsumed within each fire protection agency. Table 21A-2 in Appendix 21A, *Details of Public Services and Utilities*, identifies the fire stations located within study area, as well as the staffing goals and average response times for each agency. Figure 21-2 illustrates the location of fire stations/facilities within the study area.

[1] *Special-purpose districts* or *special district governments* in the United States are independent governmental units that exist separately from, and with substantial administrative and fiscal independence from, general purpose local governments such as county, municipal, and township governments. Most special districts provide only a single function, such as fire protection.

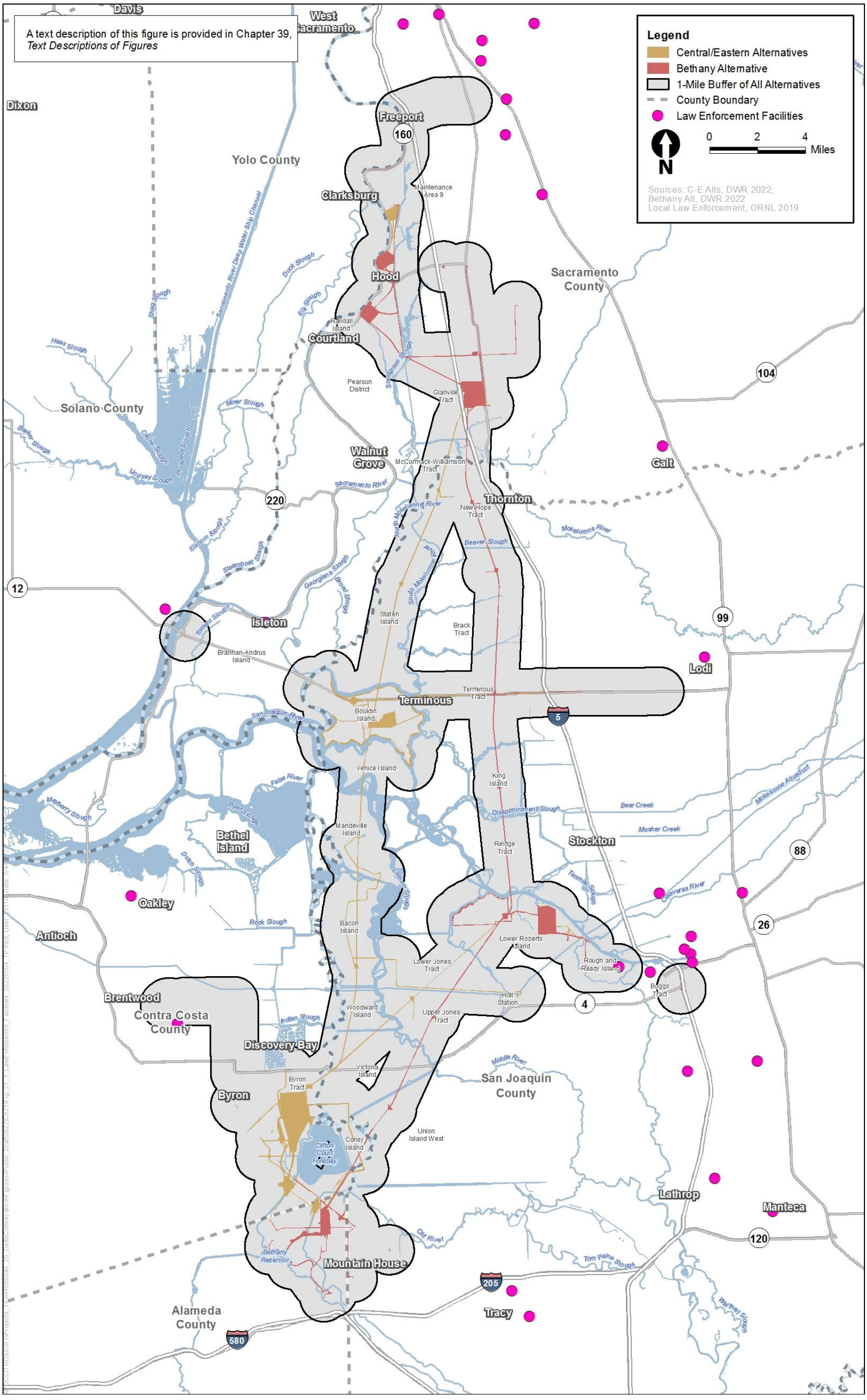

Figure 21-1. Law Enforcement Facilities in and near the Study Area

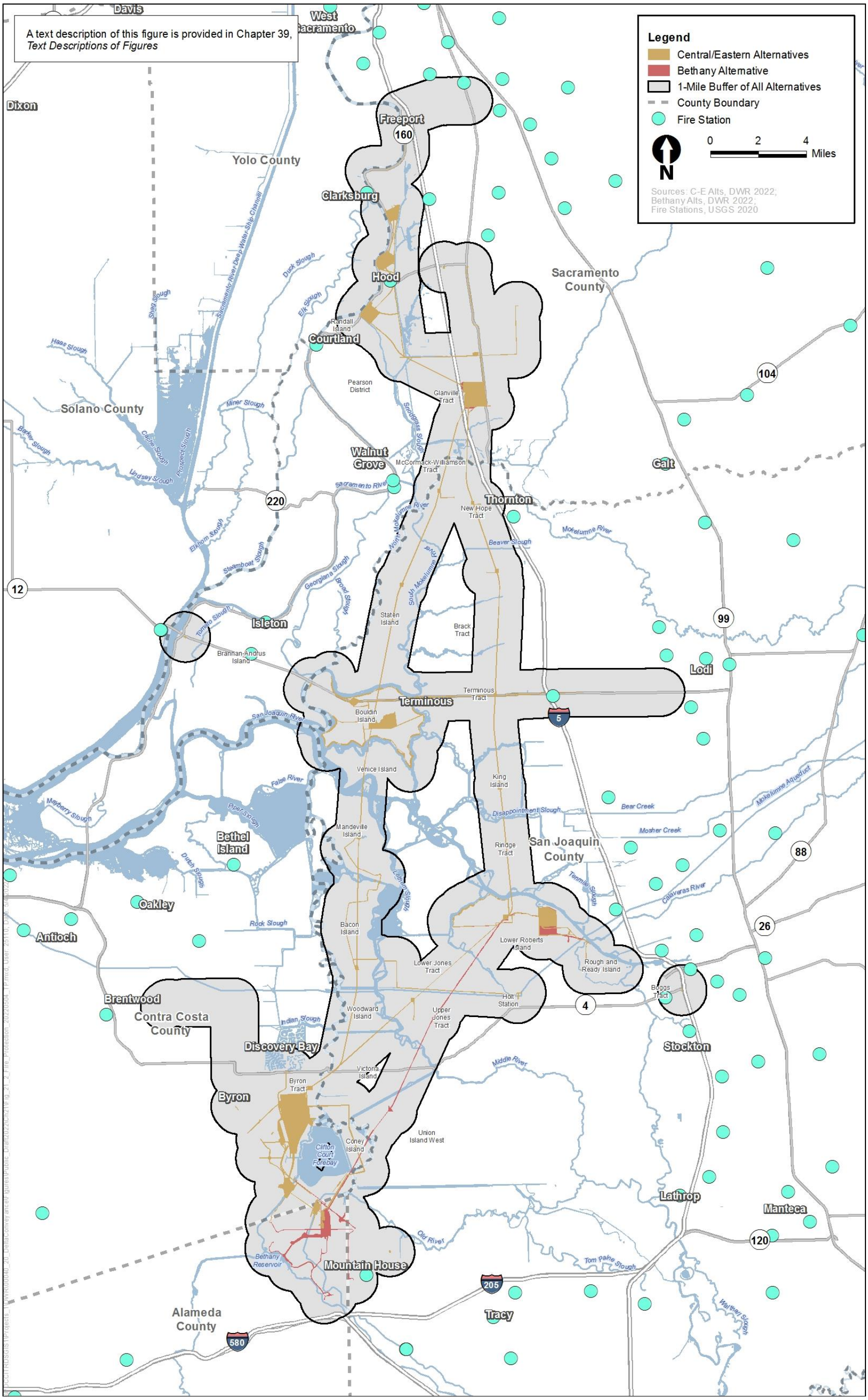

Figure 21-2. Fire Stations in and near the Study Area

Response times assist in measuring distribution of new fire stations and the adequacy of fire protection throughout a given service area. Response times depend on several factors, such as traffic circulation, development, population growth, and geographic distance. Response time is broken into three components: alarm processing time (dispatch), turnout time (or the time from which a dispatcher alerts a fire unit of an emergency to when the unit leaves the fire station), and travel time. The element of time for alarm processing is in the hands of the dispatch and communication system. The amount of time it takes to turn out fire apparatus depends on whether the station is staffed by full-time permanent or otherwise assigned personnel, or the staff is recalled (volunteer). Travel time is a function of speed and the availability of a road network for responders to get to the scene of an emergency.

Although the goal within all districts is to provide service as quickly and efficiently as possible, actual response time goals vary due to the range in densities, travel distance, and staffing capabilities. National and state guidelines call for urban fire departments to respond within 5–6 minutes of receiving an emergency call to best promote life-saving and contain fires at least 90% of the time (Burr Consulting 2009:3). Most fire protection entities have a desired response time in accordance with their county's emergency response plan or general plan goals and policies. In some instances, a fire protection entity may have a different service goal that coincides with the geographic service area and available resources of that particular entity. Table 21A-2 in Appendix 21A, *Details of Public Services and Utilities*, identifies the response time goals and the average response times for each of the fire protection entities identified within the study area.

Emergency response is often coordinated directly through each county office of emergency services or other similar emergency management dispatch entity. Frequently, emergency ambulance services are contracted to private ambulatory companies and other privately owned entities under mutual aid agreements to provide emergency services throughout a given area. Such private providers work closely with local jurisdictions and fire protection entities. Chance of survival is often related to how quickly a patient receives medical attention. Ambulance response time standards in individual communities are based on the urban or rural character of the area. Ambulance response times typically allow several additional minutes in rural areas compared to urban areas.

Hospitals

Hospitals are typically located to serve an entire community or a specific region of a county. Many larger hospitals and community/regional healthcare facilities offer a full range of inpatient services, including surgical and emergency care, as well as specialized services that focus on a particular practice (e.g., acute medical care, mental health services, convalescent care, cardiology, women's services, chemical dependency). Many hospital and healthcare campuses also include outpatient services, clinics, health centers, general medical care offices (e.g., pediatrics, family practice), and other associated medical and/or healthcare-related facilities. Healthcare is usually provided through local governments, either directly or through the counties and cities, or franchised to and operated by private providers.

For the purposes of this analysis, only the hospitals within the study area and up to 5 miles outside the study area boundary were identified because hospitals serve a regional population. As listed in Appendix 21A and Table 21A-3 and shown in Figure 21-3, there are eight hospitals/medical facilities, generally in five urbanized areas: Antioch, Stockton, Sacramento, Lodi, and French Camp. More hospitals are in Sacramento and Stockton than in other cities. The two Project Emergency Response Plan Technical Memoranda from the C-E EPR contains information on medical facilities

located relatively close to the project limits that operate 24 hours a day, 7 days per week. In addition to the facilities within the study area listed in Table 21A-3 in Appendix 21A, *Details of Public Services and Utilities*, the technical memoranda identified the following medical facilities:

- University of California (UC) Davis Medical Center (designated Trauma Center in Sacramento County)
- Sutter Medical Center, Sacramento (provides emergency services)
- John Muir Health Trauma Center (designated Trauma Center in Contra Costa County)
- Sutter Medical Center, Antioch (provides emergency services)

Although these facilities are not within the study area, they are located within a 45 minute drive of the nearest project element (without traffic congestion) (Delta Conveyance Design and Construction Authority 2022a:8–10).

Public Schools

Public schools that serve the study area encompass elementary, middle, and high schools, as well as public charter schools, continuation schools, and other specialized schools. Figure 21-4 illustrates the school districts that serve the study area. Table 21A-4 in Appendix 21A lists the many schools that serve the communities in the vicinity of the study area and the current enrollment numbers for each school. Enrollment data were collected from DataQuest, an online system that provides reports for accountability about California's schools and school districts, including test data, enrollment, graduates, dropouts, course enrollments, staffing, and data regarding English learners. The data are collected annually, in early October, on a day designated by the California Department of Education as "Information Day," and are usually certified and released in late spring or early summer. The enrollment numbers reflected in Appendix 21A are directly from the DataQuest website for the 2020/2021 school year (California School Dashboard 2021).

Libraries

The study area is served by four county library systems. Table 21A-5 in Appendix 21A lists each library branch, its system, and address. The four libraries within the study area are Clarksburg Branch Library, Brentwood Library, Rio Vista Library, and Mountain House Branch Library. Public libraries typically are funded by local property taxes, state funds, library fines and fees, grants, and donations. In addition to traditional services, county libraries increasingly provide additional community services such as adult literacy programs, mobile book services, children's programs, and internet access. Demand for library services is affected by population growth and demographic changes.

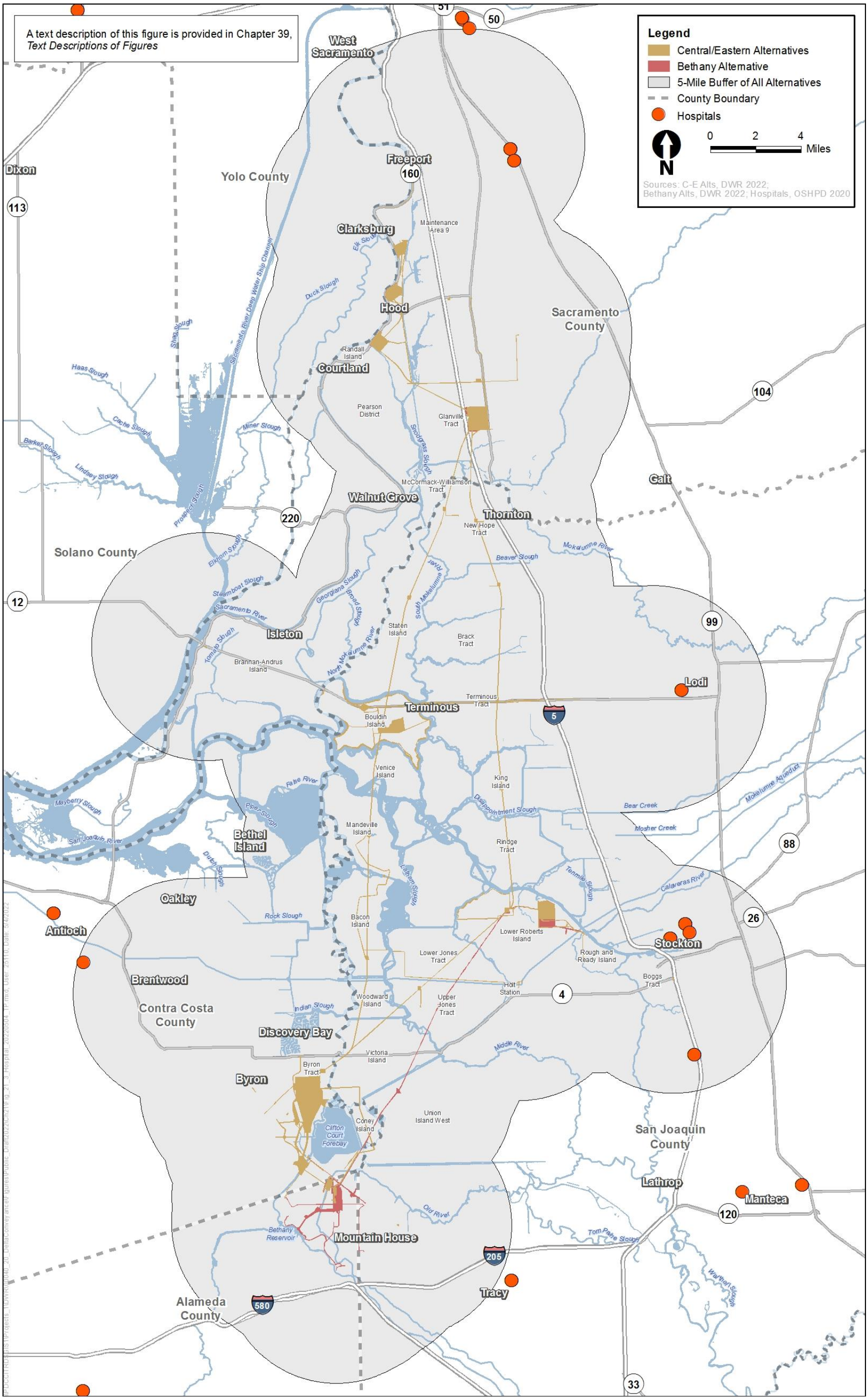

Figure 21-3. Hospitals in and near the Study Area

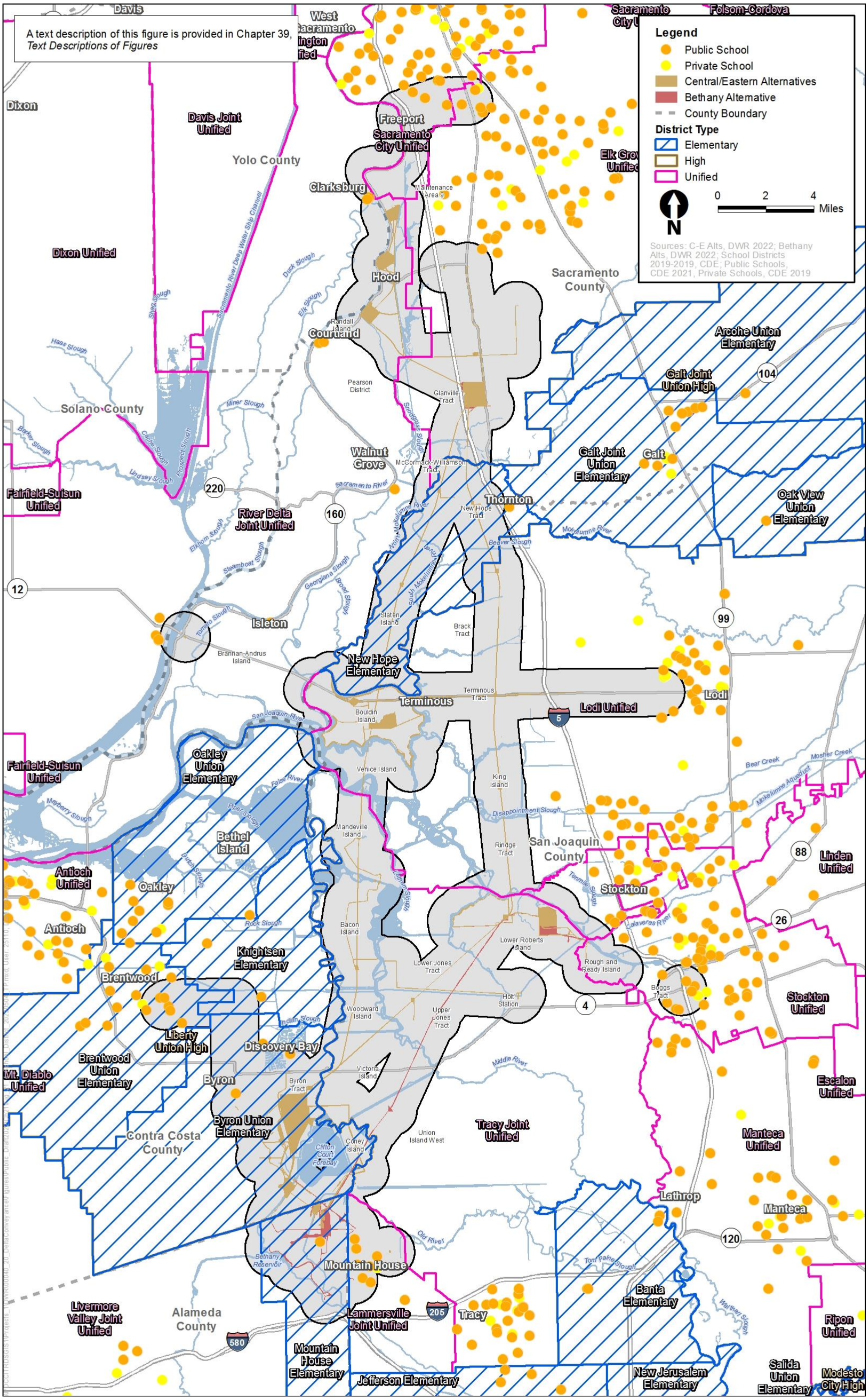

Figure 21-4. School Districts and Schools Serving the Study Area

21.1.1.2 Utilities

Solid Waste Management

California Pub. Resources Code Section 40191[a] defines *solid waste* as any discarded solid, semisolid, or liquid material that is not hazardous waste, manure, vegetable, or animal solid or semisolid. Garbage, paper, aluminum cans, and glass jars are common examples of nonhazardous solid wastes that are typically disposed of in a landfill or recycled into new materials. Municipal governments in the study area collect solid waste or contract with private franchisers for collection and transport to landfills. They also license collection companies to service commercial or industrial waste generators. Cities and counties are responsible for maintaining their own solid waste facilities, including transfer stations, disposal sites, and resource recovery facilities that receive, process, compact, and transfer solid waste to larger facilities/landfills. They may own and/or operate them, contract with each other, or contract with a private company to provide or operate facilities. A solid waste facility, site, or operation may include one or more waste handling activities (units). Cities and counties must routinely inspect active and closed solid waste facilities to ensure compliance with applicable state minimum standards and permit conditions.

Cities and counties are also responsible for the treatment, disposal, or recycling of hazardous wastes. Hazardous wastes include corrosive, toxic, reactive, or flammable materials, such as oil-based paints, solvents, batteries, and automotive fuels that should be treated, disposed of, or recycled, at a licensed facility specializing in hazardous waste management. Each county and city is required to maintain individual hazardous waste management plans that specify goals, policies, and associated objectives for managing hazardous wastes and facilities within its respective jurisdiction. The collection, transport, and disposal of hazardous materials are typically managed by private contractors.

Additional information on hazards, hazardous waste, and the transportation and disposal of hazardous materials is included in Chapter 25, *Hazards, Hazardous Materials, and Wildfire*. Potential impacts on solid or hazardous waste management facilities from the need to dispose of hazardous materials are therefore not discussed in this chapter.

Table 21A-6 in Appendix 21A, *Details of Public Services and Utilities*, identifies the active landfills, large volume transfer/processing facilities, and other facilities that process/manage various waste types (i.e., recovery/recycling facilities, and composting facilities) that serve the study area and Delta region. One solid waste facility, USA Waste of California, Inc., is located within the study area limits buffer near a planned park-and-ride facility. No other solid waste facilities are within the study area (Figure 21-5). The next nearest facility is Recology Stockton, which is right on the border of the 1-mile buffer area and is a closed transfer station.

Water and Wastewater Management

Water service providers in the study area include cities and counties, special districts, and private utilities. Service providers are shown in Appendix 21A, Table 21A-7. Water service providers range in size from those with a few service connections to those with thousands of connections. Water service providers obtain their water from surface water, groundwater, or a combination of these sources. The amount of water available to these service providers is defined by water rights, water contract agreements, groundwater pumping limitations, and the infrastructure required to treat, pump, and deliver water. According the Summary of Utility Crossings Technical Memoranda from

the C-E EPR and Bethany EPR, water service providers that serve the study area include Sacramento County Water Agency (SCWA), Woodbridge Irrigation District (WID), City of Stockton Municipal Utilities Department, Contra Costa Water District (CCWD), Town of Discovery Bay Community Services District, Byron-Bethany Irrigation District (BBID), and East Bay Municipal Utility District (EBMUD) (Delta Conveyance Design and Construction Authority 2022c:1–2, 2022d:1–2).

Municipal and industrial wastewater generated in the study area is handled by sanitary sewer systems, treatment plants, and individual septic systems. Municipal and industrial wastewater is typically transported to a treatment facility, treated, and then the treated effluent is discharged into a receiving waterbody (i.e., river, stream, creek, or slough). In some rural areas where sewer service is unavailable, residents and businesses use on-site septic systems. Treatment plants for individual nonindustrial developments also exist in some areas to treat localized wastewater from mobile home parks, apartment complexes, and resorts. The wastewater services within the study area include Sacramento Area Sewer District (SASD) and Sacramento Regional County Sanitation District (RegionalSan) (Delta Conveyance Design and Construction Authority 2022c: 1–2, 2022d: 1–2).

Methods of land disposal include evaporation/percolation ponds or application to irrigated agricultural lands. Recycled effluent is also used for industrial purposes or agricultural irrigation during the summer months. In some cases, municipalities may provide wastewater collection infrastructure and services that discharge to regional facilities owned and operated by another municipality.

As shown in Appendix 21A, *Details of Public Services and Utilities*, Table 21A-8, the only wastewater treatment plant within the study area is Discovery Bay Wastewater Treatment Facility in Discovery Bay.

Within the study area, regional wastewater facilities are provided to the communities of Courtland and Walnut Grove by the SASD. Interceptor pipelines extend between these communities and a regional pumping plant at the Rio Cosumnes Correctional Center (RCCC) (near the Franklin Field along Bruceville Road). The pumping plant lifts the wastewater into another interceptor that extends to the Sacramento Regional County Sanitation District wastewater treatment plant near the community of Elk Grove. The interceptor between the community of Courtland and the regional pumping plant at the RCCC was constructed under Lambert Road.

Wastewater services that serve the study area are SASD, RegionalSan, City of Stockton Municipal Utilities Department, Town of Discovery Bay Community Services District, and Byron Sanitary District. Water supply services are provided by SCWA, WID, CCWD, and BBID, which provides operation and maintenance to Byron Sanitary District.

Electricity and Natural Gas

Potential impacts of the construction and operation of project facilities and compensatory mitigation on the existing electric and natural gas distribution facilities are evaluated in this chapter. Electric transmission lines, power poles, and natural gas lines are identified in Figures 21-6 and 21-7, respectively. Note that Figure 21-7 shows natural gas line locations that are publicly available; for security purposes, not all lines are publicly available.

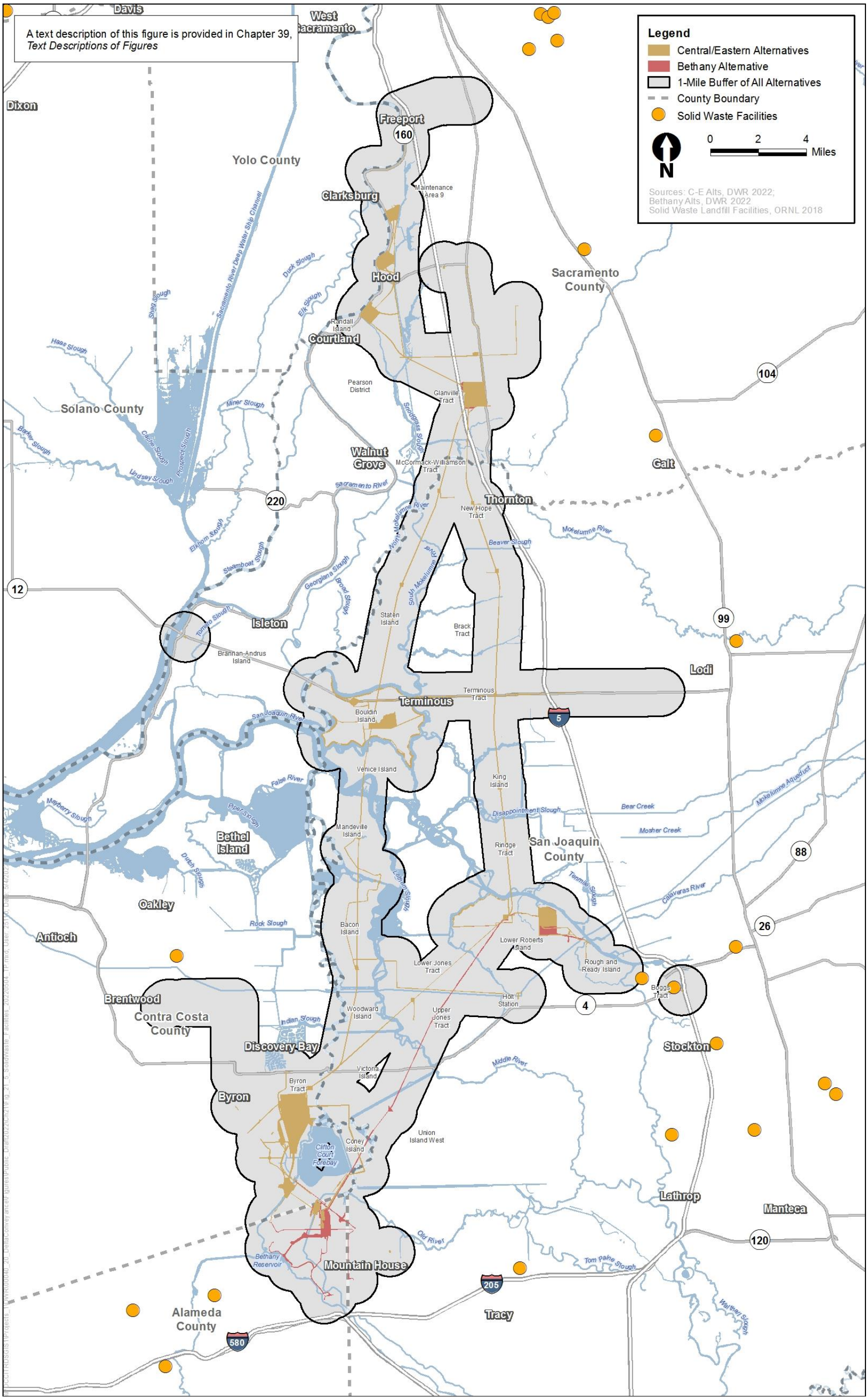

Figure 21-5. Solid Waste Facilities in the Delta Region

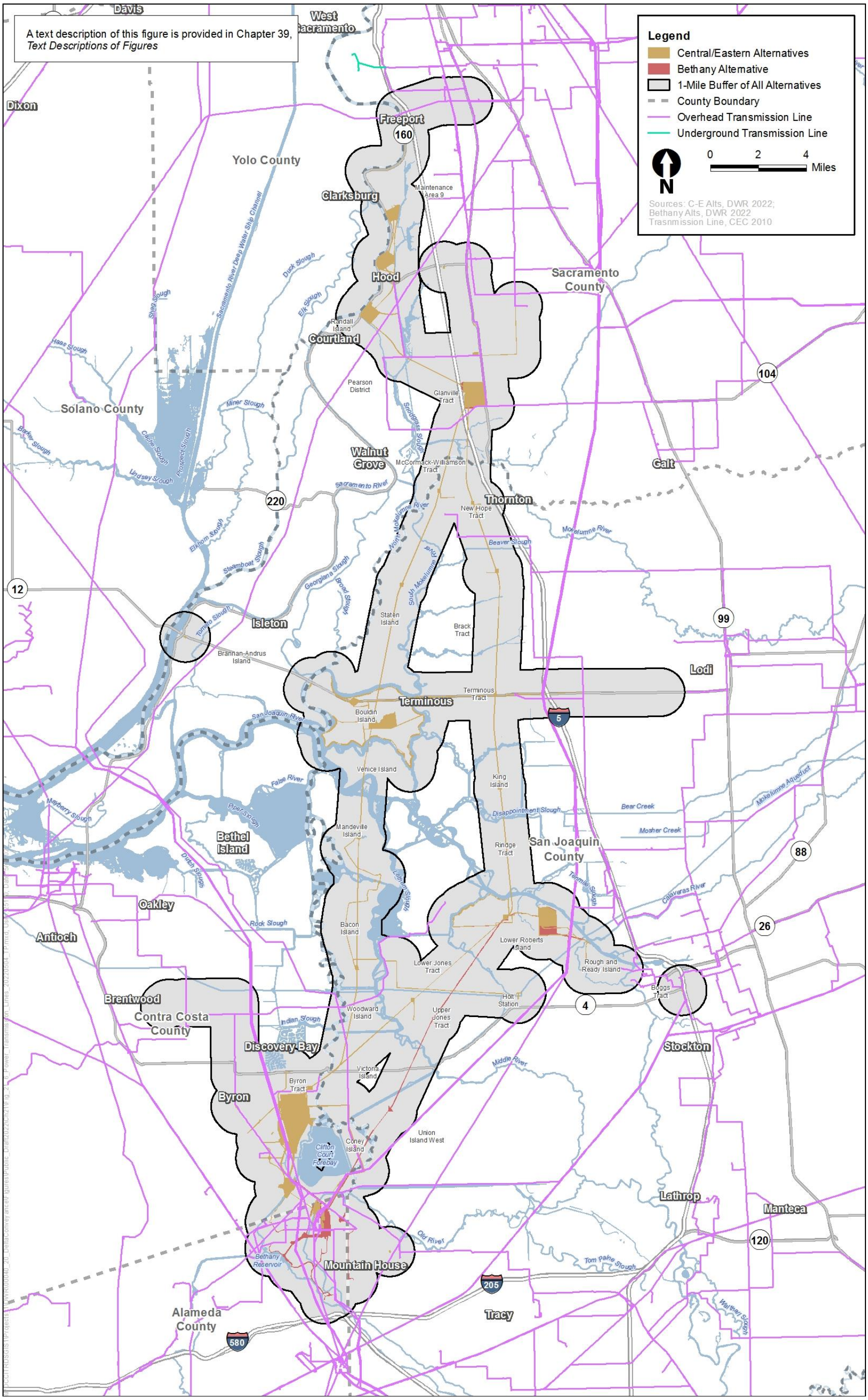

Figure 21-6. Existing Power Transmission Lines in and near the Study Area

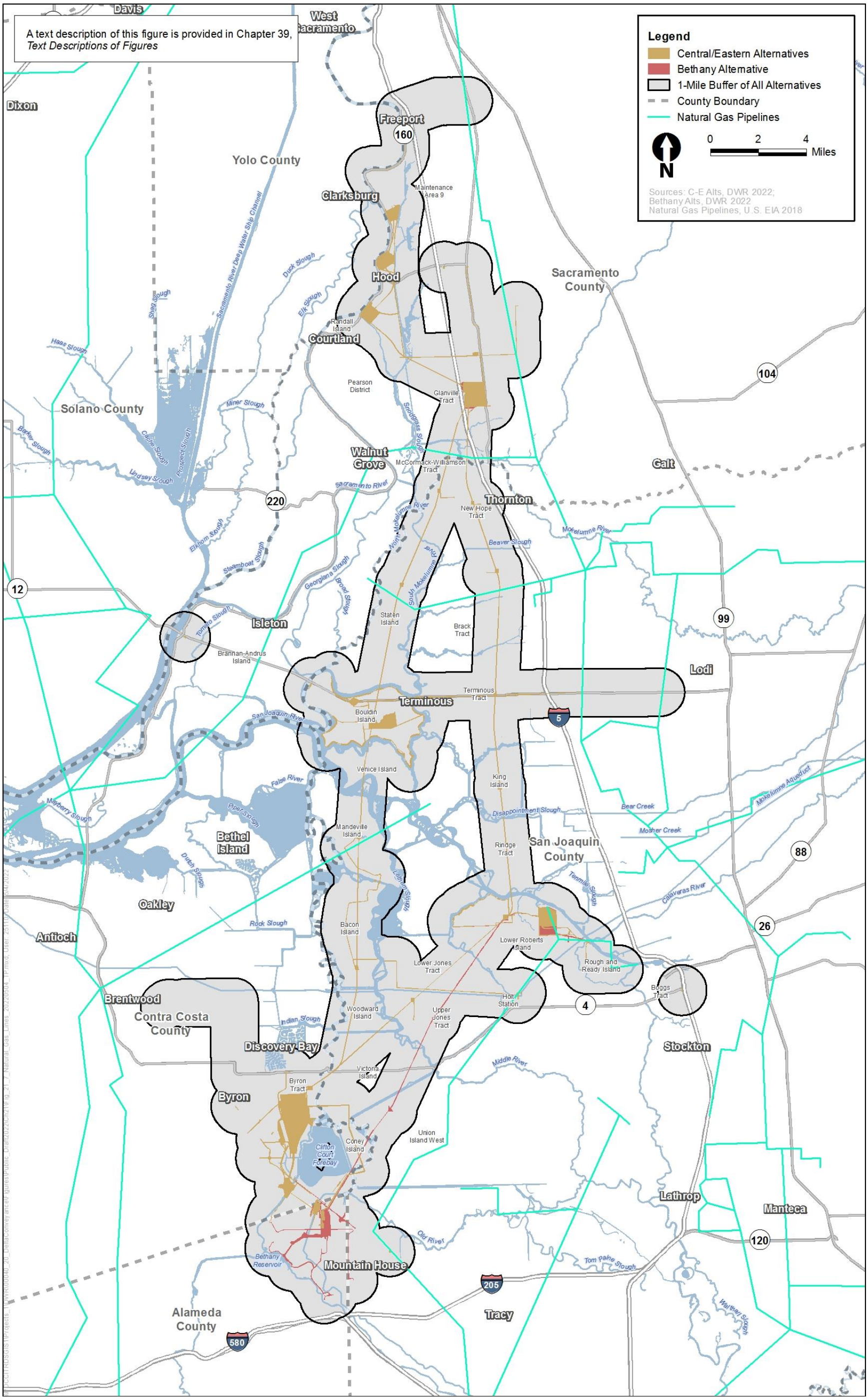

Figure 21-7. Natural Gas Lines in and near the Study Area

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Energy providers within the study area include electric utilities and natural gas companies. In some cases, energy is generated by the utilities that distribute this energy; in other instances, energy is generated by an unrelated generator and sold to the utility company. A utility may also provide service that only connects a customer to the grid (interconnection service), whereby the customer purchases its energy separately.

There are five electrical utilities in the study area: Pacific Gas and Electric Company (PG&E), Port of Stockton, Sacramento Municipal Utility District (SMUD), Transmission Agency of Northern California (TANC), and the Western Area Power Administration (WAPA). PG&E is an investor-owned utility, the Port of Stockton and SMUD are municipal utilities, and TANC is a joint powers agency primarily serving its member utilities. WAPA is one of four power marketing administrations within the U.S. Department of Energy.

Electricity within the study area is transmitted by power lines owned and maintained by the participants in the California-Oregon Transmission Project (COTP) which include TANC, WAPA, PG&E, and SMUD. The existing transmission lines are sized at 500 kilovolts (kV), 230 kV, 115 kV, 69 kV, or 60 kV. Distribution lines are generally lower voltage, and therefore, carry a smaller amount of power (e.g., 24 kV), and are generally owned by the utility companies that use them.

As described in Chapter 22, *Energy*, electrical power is provided in the study area by SMUD in Sacramento County and WAPA and PG&E throughout the rest of the study area. The electrical power needed for the conveyance facilities would be procured in time to support construction and operation of the facilities. The State Water Project (SWP) Power and Risk Office would coordinate with WAPA, PG&E, SMUD, and California Independent System Operator (CAISO) to identify, evaluate, and establish the electrical interconnection of the project facilities to the California electric grid. Purchased energy may be supplied by existing generation or by new generation constructed to support the overall energy requirements of the western electric grid. Chapter 22 addresses energy effects that are evaluated as the pumping energy requirements for the project alternatives and any change in energy for pumping Delta exports for the project alternatives.

Oil and natural gas facilities are located throughout the Delta. Figure 25-1 in Chapter 25, *Hazards, Hazardous Materials, and Wildfire*, shows the oil and natural gas wells within the study area in relation to the project alternatives. PG&E is the largest natural gas provider in the study area, whereas numerous other pipelines provide gas gathering capability. Other facilities include a PG&E natural gas storage facility on McDonald Island. Lodi Gas Storage, LLC (Lodi Gas) operates a natural gas storage facility approximately 5 miles northeast of the City of Lodi, which transports natural gas via a pipeline to Sherman Island. California Resources Company (CRC) operates a natural gas pipeline along Byron Highway and around the southern end of Clifton Court Forebay. There are miscellaneous fuel pipelines in a number of areas, including west of Stockton and near Bethany Reservoir. They serve oil, gas, and aviation fuel markets and generally are regulated at the federal level.

Communications

AT&T, Inc. is the primary supplier of telephone service to the study area, although other companies have fiber optic cables in or adjacent to the study area. Underground fiber trunk lines feed switching equipment, and overhead lines and poles supply individual service units. The communication lines are typically aligned parallel to roadways and then cross roadways to supply individual service units. Cable markers indicating underground cabling are parallel to the roadways in some areas. A network of alternative telephone companies, cellular communication companies, and cable

companies also serve the region. New service to specific sites is accomplished on a case-by-case basis and established in accordance with goals and policies set forth in local general plans regarding the provision of utilities, such as telephone and cable service. Internet services are limited in the study area.

21.2 Applicable Laws, Regulations, and Programs

The applicable laws, regulations, and programs considered in the assessment of project impacts on public services and utilities are indicated in this section, in Section 21.3.1, *Methods for Analysis*, or the impact analysis, as appropriate. Applicable laws, regulations and programs associated with state and federal agencies that have a review or potential approval responsibility have also been considered in the development CEQA impact thresholds or are otherwise considered in the assessment of environmental impacts. A listing of some of the agencies and their respective potential review and approval responsibilities, in addition to those under CEQA, is provided in Chapter 1, *Introduction*, Table 1-1. A listing of some of the federal agencies and their respective potential review, approval, and other responsibilities, in addition to those under NEPA, is provided in Chapter 1, Table 1-2.

DWR would follow the below applicable standards, guidelines, and codes (or the most current applicable version at the time of implementation) establishing health and safety requirements as well as waste diversion and reduction goals for the project.

- **California Occupational Health and Safety Code Sections 8426–8428:** Requires employers to prepare and post a plan of action for use in case of emergency, including firefighting equipment, evacuation plans, and communications. The public service analysis assumed the project would comply with all relevant California Occupational Safety and Health Administration (Cal/OSHA) safety codes.
- **California Integrated Waste Management Act (Assembly Bill 939, Chapter 1095) (1989):** The purpose of the act is to facilitate the reduction, recycling, and reuse of solid waste to the greatest extent possible. The act delegates responsibility for planning and implementing diversion of solid waste from solid waste disposal facilities to all California cities, counties, and regional solid waste management agencies. This act was considered as part of the solid waste analysis.

21.3 Environmental Impacts

This section describes the direct and cumulative environmental impacts associated with public services and utilities that would result from project construction, operation, and maintenance of the project. It describes the methods used to determine the impacts of the project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts are provided. Indirect impacts are discussed in Chapter 31, *Growth Inducement*.

21.3.1 Methods for Analysis

This section describes potential impacts on public services and utilities that would result with implementation of each alternative. The potential for the project alternatives to adversely affect the ability of service agencies to provide adequate service to the construction sites or within the existing service areas or to require expansions or upgrades to facilities or infrastructure that could result in significant impacts are analyzed according to the criteria described in Section 21.3.2, *Thresholds of Significance*.

21.3.1.1 Process and Methods of Review for Public Services and Utilities

The following methods were used to gather information for the study area.

- Collected and reviewed relevant geographic information system (GIS) data to locate law enforcement and fire protection facilities, emergency services, hospitals, public school districts, and libraries within the study area. GIS data were also used to identify solid waste facilities (e.g., landfills), water, wastewater, electric, fuel and natural gas systems, and telecommunications lines.
- Reviewed conveyance facility construction footprints and compensatory mitigation footprints against GIS information for police/sheriff stations, fire stations, hospitals, public schools and libraries, landfills, and water and wastewater facilities to identify potential direct and indirect conflicts with individual facilities.
- Determined utility conflicts for each alternative by selecting utility features within or partially within the alignment (aboveground and belowground footprints depending on utility type), construction footprint, and compensatory mitigation footprint. Utility features were identified from existing sets of utility data within ArcGIS or by visual inspection of aerial photography of the footprint areas. Utility datasets came from the California Energy Commission (2020), California Office of Emergency Services (2019), U.S. Energy Information Administration (2019), and U.S. Environmental Protection Agency (2019).
- Analyzed the project alternatives and GIS data to determine if public services and utilities within the study area would permanently be affected by the operations of the project alternatives, including conveyance-related activities and operations, facilities, and the compensatory mitigation through an increase in population demand or through effects on the circulation network or existing infrastructure.

21.3.1.2 Evaluation of Construction Activities and Operations and Maintenance

Public services and utilities could be affected by construction activities within the alternatives' footprints. The analysis for potential impacts on public and utility services required the use of GIS research in the study area to map and compare the project footprint and anticipated construction activities for each alternative.

Public Services

Law Enforcement

Law enforcement could be affected by construction in multiple ways, as follows.

- The number of construction personnel that would move into the study area to construct the water conveyance facilities associated with the project could be substantial enough to cause an increased demand for law enforcement services in the following ways.
    - Increased demand in the communities to which workers moving to the study area may relocate.
    - Increased demand associated with construction-related accidents.
- Construction may physically encroach upon a law enforcement station or facility.
- Construction, road detours, and associated traffic congestion (delays) could increase the need for traffic patrol and other law enforcement activities during construction. Additional analysis of emergency route management and whether construction could result in delays or road closures, potentially making areas inaccessible to law enforcement, fire protection and emergency services is addressed in Chapter 20, *Transportation*. As stated in Chapter 20, alternate access routes via detours and bridges to maintain continual circulation for local travelers, as well as local utility and transportation services in and around construction zones, would be part of the site-specific construction transportation demand management plan.

To analyze the potential for these conditions, each law enforcement facility in the study area was mapped and compared to the project footprint and anticipated construction and operations activities for each alternative (Figure 21-1).

Fire Protection

Fire-protection entities, which include emergency response services, have the same potential to be affected by construction activities and project operations in the same ways as law enforcement agencies. The methods used to determine impacts on fire-protection services are the same as outlined above for law enforcement agencies.

Hospitals

Hospitals and medical facilities could be affected by construction if the project alternatives physically affect a hospital in the study area, or if population increase results in the need for additional facilities or staff to serve the population. To analyze the potential for this effect, each hospital was mapped and compared to the construction footprint for each project alternative (Figure 21-3). Ambulatory service response is generally provided by local fire departments.

Schools

For the purposes of this analysis, only public schools and school districts licensed with the California Department of Education were identified and analyzed to assess potential effects of implementing the project on schools. Public schools could be affected by construction if the project alternatives encroach upon or alter the property or buildings of a school in the study area or if construction temporarily or permanently impedes vehicle access to a school property. To analyze the potential for these conditions, school districts were mapped and compared to the construction footprint for each project alternative (Figure 21-4).

As described in Chapter 17, *Socioeconomics*, the majority of the project construction workers would come from the five Delta counties—Contra Costa, Sacramento, San Joaquin, Solano, and Yolo. Alameda County is not included in the analysis because none of the County's population, and only a

small area, is within the statutory Delta and the project area. As stated in Chapter 17, *Socioeconomics,* the IMPLAN model was used to calculate employment. It is expected that most of the construction workforce would consist of workers already living in the five-county Delta region who would not demand new housing. The IMPLAN model assumes that approximately 15% of workers would commute into the five-county Delta region.

There is a possibility that construction of the project alternatives could also cause an increase in school enrollment in certain areas resulting from a potential increase in population due to construction personnel with school-age children. An increase in school-age children may result in certain schools and/or districts exceeding their student capacity. As is also discussed in Chapter 17, the five counties comprising the Delta have sufficient housing stock to accommodate workers who may choose to relocate to the region for the duration of the construction period, and new housing construction is not expected to result from the minor increase in population. The study area is largely rural and most of the housing stock is concentrated in the urban areas nearby such as Sacramento, Lodi, Stockton, Brentwood, and Tracy. It is assumed that workers who may choose to relocate to the region would most likely reside in an established community or city adjacent to the study area. These areas are already served by public schools and other public facilities. As shown in Appendix 21A, *Details of Public Services and Utilities*, there are numerous districts and schools that serve the area, most of which have adequate capacity.

Libraries

Libraries have the potential to be affected by construction activities if the alternatives affect library property in the study area. To analyze the potential for this condition, each library was mapped and compared to the construction footprint of each project alternative.

Libraries would not be affected by a decrease in taxable parcel revenue due to the Delta Reform Act, which requires full mitigation of property tax or assessments levied by local governments or special districts for land used in the construction, location, mitigation, or operation of new Delta conveyance facilities.

Utilities

Solid Waste Management

Solid waste facilities could be affected by construction from encroachment on the property of one of the facilities in the study area or from the generation of construction waste that could cause a substantial increase in the amount of solid waste in nearby landfills which could exceed predetermined capacities.

To analyze the potential for these conditions, each solid waste facility was mapped and compared to the construction footprint of each project alternative. To analyze the potential for exceeding predetermined capacities of nearby landfills, the landfills that would potentially be utilized during construction were identified; the existing capacity of these landfills was determined and compared to the anticipated amount of solid waste that would be generated from each of the project alternatives (Figure 21-5).

Water and Wastewater Services

Construction activities for the project alternatives were reviewed to assess the potential for impacts on water and wastewater service providers and infrastructure. Additionally, the potential for water

and wastewater service providers, including SASD, RegionalSan, SCWA, WID, City of Stockton Municipal Utilities Department, CCWD, Town of Discovery Bay Community Services District, BBID, and EBMUD to be affected by a substantial increase in the demand for water services was analyzed to determine whether there would be a need to construct a new facility to maintain adequate service levels within the study area.

Electricity and Natural Gas

The determination of whether there are sufficient electric or natural gas supplies to serve the construction, maintenance, and operation of the project alternatives is addressed in Chapter 22, *Energy*, which discusses energy sources for the existing SWP pumping plants, and the energy that must be received from the electrical transmission grid through the California Department of Water Resources' (DWR) participation in the CAISO energy market.

The analysis provided in this chapter addresses potential disruption of existing electric and natural gas utilities and fuel pipelines in the study area as a result of the project alternatives. For this analysis, the type of activities that could cause damage to or disruption of underground utilities was reviewed and evaluated against the number and types of utilities that cross the alignments for each alternative to determine the level of potential effect.

Communications

Telecommunications could be affected by construction of the proposed conveyance facility in the same manner as described above for electricity and natural gas utilities. The methods used to analyze impacts of the project alternatives on telecommunications were the same as outlined above for electricity and natural gas.

Overall, the proposed project is anticipated to yield internet access improvements during construction to communicate with construction sites, including remote data points.

21.3.2 Thresholds of Significance

The project would be considered to have a significant impact if it would result in any of the conditions listed below.

The chapter looks at whether the alternatives would:

- Result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental facilities, the construction of which could cause significant environmental impacts on public services including police protection, fire protection, public schools, and other public facilities (e.g., libraries, hospitals).
- Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental impacts.
- Result in a determination by the wastewater treatment provider(s) that would serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
- Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

- Not comply with applicable federal, state, and local statutes and regulations related to solid waste.

The following Appendix G checklist items are addressed in other chapters.

- Impacts on public parks are addressed in Chapter 16, *Recreation*.
- Economic impacts related to public services are addressed in Chapter 17, *Socioeconomics*.
- Transportation impacts related to provision of police, fire, and emergency services are addressed in Chapter 20, *Transportation*.

21.3.2.1 Evaluation of Mitigation Impacts

CEQA also requires an evaluation of potential impacts caused by the implementation of mitigation measures. Following the CEQA conclusion for each impact, the chapter analyzes potential impacts associated with implementing both the Compensatory Mitigation Plan and the other mitigation measures required to address with potential impacts caused by the project. Mitigation impacts are considered in combination with project impacts in determining the overall significance of the project. Additional information regarding the analysis of mitigation measure impacts is provided in Chapter 4, *Framework for the Environmental Analysis*.

21.3.3 Impacts and Mitigation Approaches

21.3.3.1 No Project Alternative

As described in Chapter 3, *Description of the Proposed Project and Alternatives,* CEQA Guidelines Section 15126.6 directs that an EIR evaluate a specific alternative of "no project" along with its impact. The No Project Alternative in this Draft EIR represents the circumstances under which the project (or project alternative) does not proceed and considers predictable actions, such as projects, plans, and programs, that would be predicted to occur in the foreseeable future if the Delta Conveyance Project is not constructed and operated. This description of the environmental conditions under the No Project Alternative first considers how public services and utilities could change over time and then discusses how other predictable actions could affect public services and utilities.

Future Public Services and Utilities Conditions

For public services and utilities, future conditions are not anticipated to substantially change compared to existing conditions because growth is not expected to change if the project (or project alternative) does not proceed. Growth is planned for in the existing local and regional land use planning documents in the Delta counties, which account for provision of public services and utilities to residents. However, indirect impacts on public services and utilities within the Delta may occur under the No Project Alternative as the result of changes in upstream hydrologic conditions, sea level rise, and continued seismic risk to Delta levees. Also, changes in the quality of Delta water may occur as result of sea level rise and upstream hydrologic conditions. Changes in water quality could result in impacts on the existing and planned population. In addition, immediate, and potentially long-term, changes in public services and utilities could occur under the No Project Alternative because of seismic events, levee failure, and the inundation of Delta lands, which could result in impacts on emergency response times or impacts on existing utilities such as water pipelines, power lines, and other infrastructure.

Predictable Actions by Others

A list and description of actions included as part of the No Project Alternative are provided in Appendix 3C, *Defining Existing Conditions, No Project Alternative, and Cumulative Impact Conditions*. As described in Chapter 4, *Framework for the Environmental Analysis,* the No Project Alternative analyses focus on identifying the additional water supply–related actions public water agencies may opt to follow if the Delta Conveyance Project does not occur.

Public water agencies participating in the Delta Conveyance Project have been grouped into four geographic regions. The water agencies within each geographic region would likely pursue a similar suite of water supply projects under the No Project Alternative (Appendix 3C). Public services (police and fire protection, schools, and libraries) and utilities (water and natural gas lines, electrical and fiber optic lines, solid waste facilities, etc.) are located throughout each of these four regions. Consequently, impacts on public services and utilities would be similar within the four regions and they are discussed collectively.

As discussed in Chapter 31, *Growth Inducement*, none of the project alternatives are expected to foster growth within the service areas of the participating water agencies. Because the water supply generated under the No Project Alternative would be no greater than the Delta Conveyance Project alternatives, it also would not foster growth and not result in a change in the demand for local or regional public services. In general, water supply projects that have large footprints or require a long construction period may be more likely to disrupt public services. However, when being constructed, these projects are typically required to ensure construction activities do not affect the level of public services provided prior to construction commencing. The extent and complexity of meeting these requirements is typically commensurate with the size of the facility and the time needed to complete construction. Of the types of water supply projects considered in the No Project Alternative, it more likely projects such as desalination and water recycling would have a greater potential to temporarily disrupt the provision of public services than actions such implementing water conservation measures.

21.3.3.2 Impacts of the Project Alternatives on Public Services and Utilities

Impact UT-1: Result in Substantial Physical Impacts Associated with the Provision of, or the Need for, New or Physically Altered Governmental Facilities, the Construction of Which Could Cause Significant Environmental Impacts on Public Services Including Police Protection, Fire Protection, Public Schools, and Other Public Facilities (e.g., Libraries, Hospitals)

All Project Alternatives

Project Construction

The construction period would last approximately 12–14 years and would require a maximum of 3,914 construction workers during peak construction activity (for Alternative 2a). Table 21-1 shows the number of construction workers estimated by alternative during peak construction activity.

Table 21-1. Estimated Workforce during Peak Construction and Operation and Maintenance

Alternative	Full-Time Equivalent Staff during Construction [a]	Operation and Maintenance Workers [a]
1	3,321	50
2a	3,914	53
2b	2,492	41
2c	3,060	47
3	2,861	49
4a	3,647	52
4b	1,922	42
4c	2,597	46
5	3,086	53

Source: Chapter 17, *Socioeconomics*.
[a] Numbers given are for the peak year across the 12- to 14-year construction period.

It is anticipated that most of the construction jobs would be filled from the existing labor force. Chapter 17, *Socioeconomics*, Table 17-7 shows the labor force and employment trends in the five-county study area; the labor force totals 19,408,300. Although it is possible that some workers could come from outside the five-county study area and require relocation, the additional population would constitute a minor increase (approximately 0.02% of the workforce under Alternative 2a, which would require the most construction workers). In addition, any new workers that relocate to the area would be spread throughout the five-county study area and would not be concentrated in any one location. Workers would also be required for the field investigations that would take place prior to construction, which are listed in Table 21-1. However, these workers would be temporary and are not anticipated to relocate to the study area. As stated in Chapter 17, *Socioeconomics*, the analysis assumes the project alternatives would primarily provide construction jobs for local residents living in the Sacramento and San Joaquin Valleys, and approximately 15% would commute from outside of the five-county study area. Some specialized workers may also be recruited from outside of the region. These estimates of construction worker origin are based on Labor Market Information provided by each County to the State of California Employment Development Department.

Police Protection

The following law enforcement agencies are located relatively close to the project alignments. These agencies could potentially provide secondary services to local police agencies and are described further in the Project Emergency Response Plan Technical Memoranda from the C-E EPR and the Bethany EPR.

- California Highway Patrol (CHP)
- Sacramento County Sheriff
- Elk Grove Police Department
- San Joaquin County Sheriff
- Lodi Police Department
- Stockton Police Department

- Contra Costa County Sheriff
- Alameda County Sheriff

Of these agencies, the Elk Grove Police Department, Lodi Police Department, and Stockton Police Department would only be able to provide secondary service to the unincorporated areas of their respective counties. The remaining agencies have offices that are located between 18 minutes (Sacramento County Sheriff) and 41 minutes (Contra Costa County Sheriff) away from the nearest project construction site.

Temporary impacts on police protection services could occur as a result of new construction workers populating the study area. However, as mentioned above, it is anticipated that the labor force would primarily be filled by workers coming from within the five-county study area, with a minimal number of employees relocating to the area. For the purposes of this analysis, the IMPLAN model assumes 15% of employees would originate from outside of the study area.

Temporary impacts on police protection services are not anticipated to occur as a result of increased demand associated with construction work areas and activities. The construction of new water conveyance facilities, such as intakes and shafts, is not anticipated to increase the need for police protection services related to protecting construction property or responding to potential construction-related accidents associated with hazardous materials spills, contamination, or fires.

As part of the project, DWR would reduce impacts on police protection services by providing construction site security during construction. All of the major project features, including pumping plants, intakes, launch shafts, and maintenance shafts, would be surrounded by at least 8-foot-tall chain link security fences with signage, 24-hour security guards, and security cameras at key locations. Security fencing, security cameras, periodical security monitoring, and security lighting would be in place during project operations. Security monitoring would serve to provide early notification to police (and fire) by preventing and/or identifying safety incidents.

Permanent impacts could occur if construction of the project components result in physical conflicts with existing police stations. As shown in Figure 21-1, the project would not physically conflict with any police protection services in the study area, and no displacement or relocation would occur.

Figure 21-1 shows two police stations within the study area: Brentwood Police Department and Port of Stockton Police Department-Substation. All alternatives involve some utility work in the vicinity of the Brentwood Police Department, but the project alternatives would not physically conflict with the facility. The eastern alignment alternatives (Alternatives 3, 4a, 4b, and 4c) and the Bethany Reservoir alignment (Alternative 5) involve utility work in the vicinity of the Port of Stockton Police Department-Substation, but the project would not physically conflict with the facility. Construction of the project would not result in the need for additional police protection services, nor would project construction physically conflict with an existing law enforcement facility. This impact would be less than significant.

Fire Protection

Temporary impacts on fire protection services could occur as a result of new construction workers populating the study area. However, it is anticipated that the labor force would be filled by workers coming from within the five-county study area, with a minimal number of employees relocating to the area.

Temporary impacts on fire protection services could also occur as a result of increased demand associated with construction work areas and activities. The construction of new water conveyance facilities, such as intakes and shafts, could increase the need for fire protection services related to protecting construction property or responding to potential construction-related accidents associated with hazardous materials spills, contamination, or fires.

The following fire protection agencies are located relatively close to the project alignment. Although all of these agencies are not within the study area or included in Appendix 21A, *Details of Public Services and Utilities*, they are discussed here and in the EPR technical memoranda because they may provide secondary services to the agencies in the study area.

- Clarksburg Fire Protection District
- Cosumnes Community Services District (CSD) Fire Department
- Courtland Fire Protection District
- East Contra Costa (ECC) Fire Protection District
- Isleton Fire Department
- Lodi Fire Department
- Montezuma Fire Protection District
- River Delta Fire District
- Thornton Rural Fire District (RFD)
- City of Tracy and South San Joaquin County Fire Authority
- Walnut Grove Fire Protection District
- Woodbridge Fire District

The Cosumnes CSD Fire Department also provides ambulance response services and is capable of confined space rescue. The Courtland Fire Protection District provides emergency medical services and hazmat response, and has some responders trained in confined space rescue, but does not have confined space rescue equipment. ECC Fire Protection District does not conduct any sort of rescue or response within a tunnel, and response to emergencies depends on vehicle traffic, particularly along State Route (SR) 4. Regarding communications, a large construction project such as the Delta Conveyance Project would place additional strain on existing communications system. Both the Isleton Fire Department and the Montezuma Fire Protection District have some responders trained in confined space rescue but lack rescue equipment. Every member of the River Delta Fire District is a trained emergency medical technician (EMT), and capabilities include structural fires, wildfires, emergency medical care, hazmat response, urban search and rescue, and water and flood rescue. The Thornton RFD does not respond to tunnel, shaft, and confined space rescue but refers these calls to urban search and rescue teams from Sacramento.

Detailed information was not obtained from Clarksburg Fire Protection District, City of Tracy and South San Joaquin County Fire Authority, Walnut Grove Fire Protection District, and Woodbridge Fire District.

Permanent impacts could occur if construction of the project components result in physical conflicts with existing fire stations. As shown in Figure 21-2, the project would not physically conflict with any fire protection stations in the study area, and no displacement or relocation would occur. As

shown in Figure 21-2 and Appendix 21A, *Details of Public Services and Utilities*, there are eight fire stations in the study area. The Sacramento City Fire Department Station 57 is within the 1-mile buffer but is not near any of the project elements. The nearest construction in the vicinity of this station is installation of an overhead fiber route on existing poles approximately 0.7 mile south. This station would not be affected by the project. Clarksburg Fire Protection District is in Clarksburg, west of the Sacramento River. Construction of Intake A (Alternatives 2a and 4a) along with access road realignment and construction of fiber routes and other utilities would occur east of the Sacramento River. Therefore, this station would not be affected.

The Courtland Fire Protection District Station 92 is within the study area and near several major project facilities. Intake B would be constructed to the north of the town of Hood, and tunnel construction would occur approximately 0.1 mile to the east. An underground power transmission line and new access road would run adjacent to the existing levee road east of Station 92. Hood-Franklin Road would be utilized as an employee access route, where workers could utilize the Hood-Franklin Park-and-Ride lot to the east to access construction at Intakes B and C. Hood-Franklin Road Bridge over Snodgrass Slough would be widened and two paved turn lanes would be added to the haul road. Although construction would be near the station, none of the construction would physically conflict with the station, and no displacement or relocation would occur.

A park-and-ride lot would be constructed in San Joaquin County to the east of Rio Vista along SR 12 (Alternatives 1, 2a, 2b, and 2c); however, the Rio Vista Fire Department would not be physically affected by this facility. Woodbridge Fire Protection District Station 4 in Lodi is southeast of the I-5 and SR 12 interchange. An underground power transmission line would be installed along SR 12, but this would not cause a physical conflict or other impacts.

Two fire stations in Stockton are within 1 mile of an area where a new power transmission line and poles/towers would be constructed. However, neither of these stations would be physically affected by any of the project components. Tracy Fire Department Station 98 is southeast of the Bethany Complex. An underground fiber route would be installed along an existing roadway west of the station, but the project's power transmission line and poles/towers would not physically affect the station.

Most of the tunnel shafts would be located within 30 minutes travel time (without consideration of local traffic congestion) to an existing fire station. Based on the unique nature of much of the construction activities under the Delta Conveyance Project, the primary emergency response services would be provided by the construction contractors. Therefore, temporary emergency response facilities, equipment, and trained personnel have been included in the plans for the main project construction sites, including intakes, tunnel launch shaft sites, and the Southern Complex or Bethany Complex. According to the Project Emergency Response Plan Technical Memoranda from the C-E EPR and Bethany EPR, emergency response for the project includes emergency service buildings at major project components that are equipped with an ambulance, rescue boat, full-time staff, a fire truck and accommodations for a full-time crew, and helipads for emergency evacuations, as applicable to the specific work site. Fire water supplies would be stored on-site at each major project feature. Because the contractor would provide primary response services, and nearby local emergency response agencies would only provide secondary backup emergency response services, this impact would be less than significant.

Hospitals

As shown in Figure 21-3, hospitals in the study area are generally located in urban areas, and no hospitals are near any of the major project facilities or construction areas. No displacement or relocation would occur.

Construction of the alternatives could also result in impacts on hospitals if a population increase results in the need for additional facilities or staff to serve the population. The eight hospitals in the study area are generally concentrated in the urban areas of Sacramento, Stockton, Lodi, and Antioch (Table 21A-3, Appendix 21A). As stated above, peak employment numbers would range from 1,922 to 3,914 employees during construction, depending on the alternative. Because most workers are expected to come from the existing study area labor force with a negligible number of construction workers anticipated to relocate to the study area, this would not affect the region's hospitals.

As stated in Chapter 20, *Transportation*, access to and from the project alternatives would be designed to meet local and regional emergency access requirements, including procedures for construction area evacuation in the case of an emergency. Construction traffic would be limited to designated construction routes, including corridors with roadway improvements and new construction access, combined with measures (such as park-and-ride lots) to reduce employee trips on Delta roadways to construction sites.

Schools

Schools in the study area are generally in urban areas. Mountain House Elementary School is located at 3950 Mountain House Road in Byron, approximately 0.18 mile south of the proposed Bethany Reservoir Aqueduct under Alternative 5. There are no public or private schools within 0.25 mile of the project footprint under Alternatives 1, 2a, 2b, 2c, 3, 4a, 4b, and 4c. No displacement or relocation would occur. Construction of Alternative 5 could result in additional traffic on roads used to access Mountain House Elementary School; however, construction traffic would be routed away from this school during the construction period to avoid impacts on the school.

Construction of any one of the alternatives could result in impacts on schools if a population increase results in additional school enrollment or the need for construction of new schools. The study area is served by 12 school districts (Figure 21-4). Table 21A-4 in Appendix 21A, *Details of Public Services and Utilities*, lists the districts and the schools within each district that serve the communities surrounding the study area and the enrollment numbers for each school in the 2020/2021 school year. Schools in the study area are generally in urban areas, and no schools are near any of the major project facilities or construction areas except for the Mountain House Elementary School, which is within the study area of Alternative 5 project facilities.

Because construction jobs would be filled by workers from within the existing labor force of the five-county study area, it is anticipated that school-aged children of those workers are already enrolled in existing schools and there would be no increased demand for public school services from these workers' families (Table 21A-4, Appendix 21A). As stated in Chapter 17, *Socioeconomics*, the analysis assumes that the project alternatives would primarily provide construction jobs for local residents living in the Sacramento and San Joaquin Valleys, and approximately 15% of employees would commute from other areas.

The maximum amount of construction workers would be under Alternative 2a, which would constitute approximately 0.02% of the workforce population in the five-county Delta region.

Although some workers who relocate from outside of the study area could have school-age children, resulting in an increase in public school enrollment, this minor increase in population in the study area would not be expected to result in an increase in enrollment numbers substantial enough to exceed the capacity of any individual district, or to warrant construction of a new school. The incremental increase in school-age children of construction personnel moving into the area for specialized jobs (e.g., tunnel construction) as a result of construction would be distributed among several schools within the study area.

Because the project is anticipated to result in a minimal population increase, and because it would not have a substantial impact on school enrollment in any one school district, the project would not exceed the capacity of any school district or warrant construction of a new school under any alternative.

Libraries

Several libraries are in the study area: Clarksburg Branch Library, Brentwood Library, Rio Vista Library, and Mountain House Branch Library. Because the alternatives would not substantially affect population levels in the study area, substantial increased demand for library services is not anticipated to the extent that new library facilities would be necessary. None of the alternatives would result in temporary or permanent effects on these libraries.

Operations and Maintenance

Permanent impacts on public services could occur if a population increase results in the need for additional facilities or staff to serve the population. Operations and maintenance related to the project would require a minimal number of employees, between 41 permanent employees under Alternative 2b and 53 permanent employees under Alternatives 2a and 5 (Table 21-1). These employees are anticipated to come from the labor force of the existing five-county study area and, and any population increase as a result of the project would be minimal.

There would be no need for additional police and fire protection services, hospitals, schools, or libraries.

CEQA Conclusion—All Project Alternatives

The construction worker population is assumed to come from the existing labor force, which is already served by existing law enforcement, fire department, hospitals, schools, and other public services in the five-county study area. Some construction workers could relocate but are anticipated to be spread throughout counties of the five-county study area. Because there would be minimal, if any, increase in population within the five-county study area, there would not be a need for construction of new or expanded infrastructure or services related to police protection, fire protection, hospitals, schools or other public services. DWR would reduce impacts on police protection services by providing construction site security during construction and operations. The primary emergency response services would be provided by the construction contractors. Therefore, temporary emergency response facilities, equipment, and trained personnel have been included in the plans for the main project construction sites, including intakes, tunnel launch shaft sites, and the Southern Complex or Bethany Complex. Emergency response for the project includes emergency service facilities at major project components that are equipped with an ambulance, rescue boat, full-time staff, a fire truck and accommodations for a full-time crew, and helipads for emergency evacuations, as applicable to the specific work site. Fire water supplies would be stored

on-site at each major project feature. Therefore, the project would result in a less-than-significant impact on fire protection and emergency services. Project construction could result in temporary impacts on emergency routes in the study area. However, construction traffic would be limited to designated construction routes, including corridors with roadway improvements and new construction access, combined with measures (such as park-and-ride lots) to reduce employee trips on Delta roadways to construction sites. Furthermore, Mitigation Measure TRANS-1: *Implement Site-Specific Construction Transportation Demand Management Plan and Transportation Management Plan* would require this impact is less than significant by requiring specific transportation management actions at construction sites and actions to reduce traffic congestion. Therefore, this impact would be less than significant.

Mitigation Measure TRANS-1: Implement Site-Specific Construction Transportation Demand Management Plan and Transportation Management Plan

See description of Mitigation Measure TRANS-1 under Impact TRANS-1 in Chapter 20, *Transportation*.

Mitigation Impacts

Compensatory Mitigation

Although the Compensatory Mitigation Plan described in Appendix 3F, *Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources*, does not act as mitigation for public services and utilities impacts from project construction or operations, its implementation could result in public services and utilities impacts.

As with the project alternatives, compensatory mitigation (on Bouldin Island and three ponds along I-5) and creation of tidal wetland and channel margin habitat in the North Delta Arc (Appendix 3F, *Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources)* would provide construction jobs for site preparation, material deliveries, earth moving, access improvements, and vegetation. As stated in Chapter 17, *Socioeconomics*, these jobs would primarily be filled by local residents living in the five-county study area. Some population increase could occur, but it would constitute a very small increase in the total Delta region population. Any project-related effects on population are anticipated to be distributed throughout the five-county Delta region.

Public services such as law enforcement, fire departments, and emergency services may be affected by traffic, although there would be new roads constructed for accessibility purposes. Mitigation Measure TRANS-1: *Implement Site-Specific Construction Transportation Demand Management Plan* would reduce this impact from the project alternatives combined with the Compensatory Mitigation Plan to a less-than-significant level. Therefore, implementation of compensatory mitigation would not change the overall impact conclusion of less than significant.

Other Mitigation Measures

Some mitigation measures (Mitigation Measures BIO-2c: *Electrical Power Line Support Placement* and AG-3: *Replacement or Relocation of Affected Infrastructure Supporting Agricultural Properties*) entail relocating or replacing infrastructure such as power lines, pipelines, wells, and drainage systems, which could cause additional traffic. However, due to the localized nature of potential adverse traffic impacts, replacing or relocating agricultural support facilities would not be expected to have a substantial effect on roadway capacity or traffic patterns. Furthermore, as described

above, Mitigation Measure TRANS-1 would be available to reduce the severity of this effect to be less than significant. Other mitigation measures proposed would not have impacts on public services.

Overall, the project alternatives combined with implementation of the Compensatory Mitigation Plan and other mitigation measures would have a less-than-significant impact on public services such as police and fire protection, schools, and libraries because no population increase is anticipated.

Impact UT-2: Require or Result in the Relocation or Construction of New or Expanded Service System Infrastructure, the Construction or Relocation of Which Could Cause Significant Environmental Impacts for Any Service Systems Such as Water, Wastewater Treatment, Stormwater Drainage, Electric Power Facilities, Natural Gas Facilities, and Telecommunications Facilities

All Project Alternatives

Project Construction

Water and Wastewater

Construction of the project alternatives would require water service for activities such as dust control, mixing and moisture compaction, as well as restroom facilities at the tunnel launch shaft sites, intake sites, and Southern Complex or Bethany Complex. Water would be used for tunneling operations at the tunnel launch shaft sites and to make concrete at the three concrete batch plants. Water would also be used for emergency firefighting purposes at the intakes and tunnel launch shaft sites, and at the Southern Complex or Bethany Complex. Field investigations would not require or result in the relocation or construction of service system infrastructure.

Construction activities may require various amounts of water depending on the activity and location. The water supply needed for construction will be satisfied through a combination of the following: import from local sources, exchanges, use of existing riparian diversions, new temporary appropriations, or existing SWP appropriations. Any use of diversions will be screened, as appropriate, and additional authorizations addressed following development of detailed engineering design.

Conflicts with existing infrastructure could occur if project construction crosses an existing water line or other water conveyance infrastructure. A small portion of the Hood Well and Treatment facility lies above the proposed tunnel alignment for Alternatives 1, 2a, 2c, 3, 4a, 4c, and 5. The Bethany Reservoir alignment (Alternative 5) crosses beneath the BBID Mountain House Water Supply Main at the Byron Highway. The Bethany Reservoir alignment (Alternative 5) and the eastern alignment (Alternatives 3, 4a, 4b, and 4c) cross under Stockton's raw water pipeline at 8-Mile Road. The central and eastern alignments cross under the BBID pipeline in the tunnel to the Delta-Mendota Canal for the 7,500 cubic feet per second design capacity (Alternatives 2a and 4a). The Bethany Reservoir alignment (Alternative 5) also crosses under two BBID canals and the Central Valley Project Jones Pumping Plant discharge penstocks. The Summary of Utility Crossings Technical Memoranda in the C-E EPR and Bethany EPR describe the various potential crossings with water and wastewater pipelines operated by SASD, RegionalSan, SCWA, WID, City of Stockton Municipal Utilities, CCWD, Town of Discovery Bay Community Services Department, BBID, and EBMUD (Delta Conveyance Design and Construction Authority 2022c:5–8, 2022d:4–5). It is also possible that the current project alignments could cross under existing utilities where the locations

are confidential and/or not currently known. Crossing an existing pipeline does not necessarily mean there would be a physical conflict but represents areas where conflicts could potentially occur. According to the technical memoranda, none of the alternatives would conflict with existing water and wastewater pipelines. During the design phase, more in-depth analysis of easement locations associated with acquired parcels and utilities surveys would be completed to locate, understand, and avoid conflicts with existing utilities.

With respect to private irrigation systems, if the facilities located on a parcel to be used for a Delta Conveyance Project feature extends to adjacent parcels, the existing water conveyance facilities would be extended though the construction site parcels to maintain service to the adjacent properties, as described in Chapter 3, *Description of the Proposed Project and Alternatives*.

Construction of any one of the alternatives would also require wastewater treatment due to wastewater generated by project construction. Wastewater facilities for most of the construction sites would be provided with portable restrooms. Septic systems would be constructed at the intakes (all alternatives), Bouldin Island tunnel launch shaft (central alignment alternatives), Lower Roberts Island (eastern alignment alternatives and Alternative 5), Twin Cities Complex (all alternatives), and Bethany Reservoir Pumping Plant (Alternative 5) or South Delta Pumping Plant (central and eastern alignment alternatives). These systems would generally entail construction of a 2,000-gallon concrete septic tank and leach field to treat wastewater flow from the restrooms. Leach fields would be sized larger for areas with high groundwater/low soil permeability in accordance with the applicable county regulations. It is estimated that the peak daily flow would be 500 gallons per day. Table 21-2 shows the anticipated on-site septic treatment by alternative.

Table 21-2. On-Site Septic Treatment during Construction (total gallons)

Alternative	Total Gallons
1	10,560,000
2a	12,540,000
2b	8,712,000
2c	10,164,000
3	11,352,000
4a	13,332,000
4b	9,108,000
4c	10,560,000
5	10,824,000

Source: Appendix 23B, Air Quality and GHG Analysis Activity Data.

As shown in Table 21-2, Alternative 4a would generate the most wastewater, and Alternative 2b would generate the least. Because the project would construct its own septic tanks and leach fields to handle wastewater treatment generated by project construction, it is not anticipated that the project would contribute to any local wastewater treatment plants or related infrastructure, and therefore, none would need to be expanded. During the design phase, location of the alignment construction would be coordinated with the local utilities to avoid conflict with wastewater pipelines near the central and eastern alignment alternatives that serve Courtland and Walnut Grove. Environmental impacts related to construction of project-related wastewater treatment facilities are analyzed in other chapters of this EIR, including Chapter 10, *Geology and Seismicity,*

Chapter 11, *Soils*, Chapter 13, *Terrestrial Biological Resources*, Chapter 15, *Agricultural Resources*, Chapter 19, *Cultural Resources*, Chapter 23, *Air Quality and Greenhouse Gases*, Chapter 24, *Noise and Vibration*, Chapter 25, *Hazards, Hazardous Materials, and Wildfire*, and Chapter 28, *Paleontological Resources*.

Stormwater Drainage

Impacts on stormwater could occur during the construction period if stormwater runoff would exceed existing drainage capacity, requiring the construction of new or expanded facilities. As stated in Chapter 3, most construction sites contain local irrigation and drainage facilities installed by existing or previous private landowners or reclamation districts. During the design phase when the project can acquire access to specific parcels, these facilities would be mapped for each site. If the facilities used by adjacent properties to move water from the existing diversion are on a parcel to be used for a project feature, pipelines or canals would be installed to maintain service to the adjacent properties.

To reduce stormwater runoff impacts, stormwater runoff on the construction sites at the intakes (all alternatives), tunnel shafts (all alternatives), and Bethany Complex (Alternative 5) or Southern Complex (central and eastern alignment alternatives) would be collected, treated, and stored on-site to reduce the need for off-site water sources. These facilities would also reduce peak stormwater runoff flows from the construction sites. As described above, on-site reuse would be maximized to reduce peak runoff rate from the site and avoid the use of off-site water. As stated in Chapter 3, runoff water would be stored on-site in tanks within portable containerized trailers, with total storage capacity of up to 1,000,000 gallons. During wet weather periods when the storage facilities are full, water would be discharged to adjacent drainages. Capacity analyses would be conducted to determine if the discharged flows would adversely affect use of adjacent drainage facilities by existing users. Because the project would construct its own stormwater collection and treatment facilities, and because the project would reuse stormwater to the extent feasible, it is not anticipated that the project would result in impacts on existing facilities for any alternative. In addition, Environmental Commitment EC-4b: *Develop and Implement Stormwater Pollution Prevention Plans* is included to require erosion and sediment control measures are in place during construction, as well as waste management measures and inspection and monitoring measures. The full text of Environmental Commitment EC-4b can be found in Appendix 3B, *Environmental Commitments and Best Management Practices*. Environmental impacts related to construction of project-related stormwater treatment facilities are analyzed in other chapters of this EIR, including Chapter 10, *Geology and Seismicity,* Chapter 11, *Soils*, Chapter 13, *Terrestrial Biological Resources*, Chapter 15, *Agricultural Resources*, Chapter 19, *Cultural Resources*, Chapter 23, *Air Quality and Greenhouse Gases*, Chapter 24, *Noise and Vibration*, Chapter 25, *Hazards, Hazardous Materials, and Wildfire*, and Chapter 28, *Paleontological Resources*.

Electric Power, Oil and Natural Gas, and Telecommunications

Construction sites for all alternatives would require utility services for power for construction of the intakes and tunnel shafts, and for the Southern Complex or Bethany Complex. Power would support large equipment, smaller tools, and construction-support facilities, such as construction trailers and temporary lighting. Power for construction would use existing power lines to the extent feasible, but some facilities would require use of existing and new aboveground power poles with lines or underground conduits. Field investigations include activities such as soil borings, pile installation, test trench digging, and utility potholing. The utility potholing would include vacuum or backhoe

excavations, followed by noninvasive surface field surveys. Some features would not require utility potholing and would be located using only noninvasive surface field surveys. Other activities, including test trenches, would use noninvasive techniques to provide information on subsurface conditions.

Construction of the alternatives could also potentially conflict with existing electric power lines and telecommunication lines. Although existing power lines would be utilized to the extent feasible, some of the project components, such as widening roads, would require relocation of existing poles used for overhead power lines. Figure 21-6 shows the known transmission lines relative to project components. As shown in Figure 21-6, there are transmission lines throughout the study area, but most are concentrated northwest of Clifton Court Forebay, where the Southern Complex on Byron Tract would be located (Alternatives 1, 2a, 2b, 2c, 3, 4a, 4b, and 4c) or south of Clifton Court Forebay in the vicinity of the Bethany Complex (Alternative 5). Table 21-3 shows overhead transmission lines that cross the project by alternative.

Table 21-3. Overhead Transmission Lines—Potential Temporary Surface Crossings (miles)

Transmission Line	Alt 1	Alt 2a	Alt 2b	Alt 2c	Alt 3	Alt 4a	Alt 4b	Alt 4c	Alt 5
PG&E 115kV	0.023	0.023	0.017	0.023	0.023	0.023	0.017	0.023	0.023
PG&E 230kV	0.005	0.005	0.005	0.005	0.014	0.014	0.014	0.014	0.276
PG&E 500kV	0.203	0.203	0.203	0.203	0.203	0.203	0.203	0.203	0.133
PG&E 60kV	0.129	0.129	0.129	0.129	0.116	0.116	0.116	0.116	1.049
SMUD 60kV	1.437	1.437	1.186	1.437	1.437	1.437	1.186	1.437	0.958
TANC 500kV	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.248
WAPA 230kV	0.094	0.104	0.094	0.094	0.129	0.140	0.129	0.129	0.355
WAPA 69kV	0.113	0.113	0.113	0.113	0.113	0.113	0.113	0.113	0.016
Total	2.032	2.043	1.775	2.032	2.064	2.074	1.807	2.064	3.089

Sources: California Energy Commission 2020; California Office of Emergency Services 2019; U.S. Energy Information Administration 2019.
Alt = alternative; kV = kilovolt; PG&E = Pacific Gas and Electric Company; SMUD = Sacramento Municipal Utility District; TANC = Transmission Agency of Northern California; WAPA = Western Area Power Administration.

Table 21-3 presents the extent, in miles, where any of the surface impacts of the project such as intakes, access roads, and other aboveground infrastructure would cross an existing overhead transmission line. Crossing a utility does not necessarily mean there would be a physical conflict. Conflicts would only occur if the existing utility would need to be relocated or removed. As shown in Table 21-3, although the number of crossings is similar across alternatives, Alternative 5 would have the most utility crossings and Alternative 2b would have the least.

As stated in Chapter 3, new aboveground transmission lines on existing poles would be needed from the Franklin Substation along Franklin Boulevard to Lambert Road. From the intersection of Lambert Road and Franklin Boulevard, these transmission lines would be extended underground to the Lambert Batch Plant complex, the intakes, and the Twin Cities Complex. New aboveground high-voltage transmission lines would be needed to serve the Southern Complex (Alternatives 1, 2a, 2b, 2c, 3, 4a, 4b, and 4c). Very short (i.e., 100- to 200-foot) transmission lines would be needed to connect between a new substation and the existing overhead transmission lines for service to Lower Roberts Island (Alternatives), Bouldin Island, and a very short aboveground transmission line would be needed to serve the Bethany Complex from the Tracy Substation to the on-site switchyard

(Alternative 5). Electricity in certain geographical areas of the study area is provided by SMUD, PG&E, and WAPA. These utilities own and maintain high-voltage transmission lines in the study area.

Table 21-4 shows overhead transmission lines that could potentially cross the project by alternative.

Table 21-4. Overhead Transmission Lines—Permanent Surface Crossings (miles)

Transmission Line	Alt 1	Alt 2a	Alt 2b	Alt 2c	Alt 3	Alt 4a	Alt 4b	Alt 4c	Alt 5
PG&E 115kV	0.028	0.028	0.013	0.023	0.028	0.028	0.013	0.028	0.028
PG&E 230kV	0.057	0.057	0.057	0.005	0.080	0.080	0.080	0.080	0.516
PG&E 500kV	0.080	0.080	0.080	0.203	0.080	0.080	0.080	0.080	0.115
PG&E 60kV	0.973	0.973	0.973	0.129	0.946	0.946	0.946	0.946	1.200
SMUD 60kV	6.104	6.104	1.186	6.054	6.104	6.104	6.054	6.104	6.104
TANC 500kV	0.016	0.016	0.028	0.016	0.016	0.016	0.016	0.016	0.160
WAPA 230kV	0.140	0.140	0.094	0.140	0.238	0.238	0.238	0.238	0.312
WAPA 69kV	0.095	0.095	0.113	6.054	0.095	0.095	0.095	0.095	0
Total	7.493	7.493	7.428	7.493	7.587	7.587	7.522	7.587	8.714

Sources: California Energy Commission 2020; California Office of Emergency Services 2019; U.S. Energy Information Administration 2019.
Alt = alternative; kV = kilovolt; PG&E = Pacific Gas and Electric Company; SMUD = Sacramento Municipal Utility District; TANC = Transmission Agency of Northern California; WAPA = Western Area Power Administration.

Table 21-4 presents the extent, in miles, where any of the permanent aboveground project features would cross an existing overhead transmission line. Crossing a utility does not necessarily mean there would be a physical conflict. Conflicts would only occur if the existing utility would need to be relocated or removed. As shown in Table 21-4, although the number of crossings is similar across alternatives, Alternative 5 has slightly more crossings with overhead transmission lines than the other alternatives.

The Electrical Power Load and Routing Study Technical Memoranda in the C-E EPR and Bethany EPR state that the existing power infrastructure has sufficient capacity to supply proposed project facilities (Delta Conveyance Design and Construction Authority 2022e:2, 2022f:2). However, some facilities are expected to require more capacity than the current electrical lines and/or substations can provide, and in these cases, it is assumed that new power lines would be routed to the nearest substation, and some substations may need to be upgraded. Replacement or addition of new lines within the existing distribution/transmission corridors on existing power poles would occur, and in some cases, moving existing or addition of new aboveground power poles would also occur. Electrical feeder lines may also need to be relocated. All of the alternatives would require some installation of on-site electrical facilities, including substations, switchyards for high-voltage lines, circuit breakers, and on-site transformers. These facilities would be built within the project footprint. The environmental impacts related to excavation, trenching and other groundwork required for these facilities has been analyzed in other chapters of this EIR, including Chapter 10, *Geology and Seismicity*, Chapter 11, *Soils*, Chapter 13, *Terrestrial Biological Resources*, Chapter 15, *Agricultural Resources*, Chapter 19, *Cultural Resources*, Chapter 22, *Energy*, Chapter 23, *Air Quality and Greenhouse Gases*, and Chapter 24, *Noise and Vibration*.

All of the alternatives would cross existing PG&E, Lodi Gas Storage LLC, and California Gas Transmission Co. natural gas and fuel lines (Figure 21-7). The tunnel alignment, access roads, and connections to power lines and communications systems would cross existing PG&E natural gas pipelines at a total of 18 locations along the central alignment, 15 locations along the eastern alignment, and 19 locations for the Bethany alternative.

Table 21-5 shows the total amount (in miles) of natural gas pipelines that could potentially cross the project during construction depending upon the depth of the natural gas pipelines.

Table 21-5. Natural Gas Pipelines—Potential Temporary Subsurface Crossings (miles)

Temporary Impacts	Alt 1	Alt 2a	Alt 2b	Alt 2c	Alt 3	Alt 4a	Alt 4b	Alt 4c	Alt 5
Subsurface	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.05

Sources: California Energy Commission 2020; California Office of Emergency Services 2019; U.S. Energy Information Administration 2019.
Alt = alternative.

Table 21-5 presents the extent, in miles, where any of the subsurface impacts of the project (tunnels and pipelines), or other aboveground project components such as intakes, access roads, and other aboveground infrastructure, would cross an existing natural gas pipeline. Crossing a utility does not necessarily mean there would be a physical conflict, but the data represents areas where conflicts could potentially occur depending upon the depth of the natural gas pipeline, which would be determined during field investigations. As shown in Table 21-5, Alternatives 1, 2a, 2b, and 2c would result in 0.07 mile of potential conflicts with natural gas pipelines. Alternatives 3, 4a, 4b, and 4c would result in 0.06 mile of potential conflicts, and Alternative 5 would result in the least amount of potential conflict (0.05 mile).

Table 21-6 shows the natural gas pipelines that could have a potential crossing of both subsurface project elements (such as tunnels, fiber lines, or other underground facilities) and surface project elements (such as intakes, shafts, buildings, and other aboveground facilities) that could require relocation depending on the depth of the facilities.

Table 21-6. Natural Gas Pipelines—Permanent Impacts (miles)

Permanent Impacts	Alt 1	Alt 2a	Alt 2b	Alt 2c	Alt 3	Alt 4a	Alt 4b	Alt 4c	Alt 5
Subsurface	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.05
Surface	0.03	0.03	0.03	0.03	0.6	0.8	0.2	0.5	0.57

Sources: California Energy Commission 2020; California Office of Emergency Services 2019; U.S. Energy Information Administration 2019.
Alt = alternative.

Crossing a utility does not necessarily mean there would be a physical conflict, but the data represents areas where conflicts could potentially occur depending on the depth of the pipeline. As shown in Table 21-6, Alternatives 1, 2a, 2b, and 2c would result in 0.07 mile of potential conflicts with subsurface natural gas pipelines. Alternatives 3, 4a, 4b, and 4c would result in 0.06 mile of potential subsurface conflicts, and Alternative 5 would result in the least amount of potential subsurface conflict (0.05 mile). Alternatives 1, 2a, 2b, and 2c would have the least potential conflicts

with aboveground project elements. The other alternatives vary slightly, and Alternative 4a would have the most potential for conflict (0.8 mile).

The Summary of Utility Crossings Technical Memoranda in the C-E EPR and Bethany EPR describe the oil and natural gas providers and potential conflicts in the study area (Delta Conveyance Design and Construction Authority 2022c:9–10, 2022d:5–6). The project is not anticipated to impact any PG&E, Lodi Gas Storage, LLC, or CRC pipelines, most of which are anticipated to be buried in shallow ground, well above where tunnels would be located. The tunnel alignment and other project facilities are not anticipated to conflict with these pipelines. Due to the expected depth of the existing pipelines, it is assumed that the project construction would have no impact on the existing PG&E lines. All alternatives cross a Lodi Gas pipeline but would be buried well below the existing pipeline, and no conflicts are anticipated. All alternatives would result in a crossing under an existing CRC pipeline located on the Byron Highway bridge. This pipeline would be relocated on the new bridge and would not be affected by tunnel construction. Coordination with utility operators would occur during the design phase to avoid interference or interruption of service (Delta Conveyance Design and Construction Authority 2022c:10, 2022d:6).

There are a number of miscellaneous fuel pipelines throughout the study area in which the project alignments would cross. In general, the central and eastern alignment alternatives would have the most crossings near the Byron Highway. Several existing pipelines may need to be relocated for the work when Byron Highway is realigned. Additional pipelines on Woodward Island and Lower Jones Tract would cross with the central and eastern alignments, but no conflicts are anticipated. Under the Bethany alternative, there would be no crossings with any pipelines north of the California Aqueduct. There would be several crossings with fuel pipelines between Bethany Reservoir and the Byron Highway, but it is anticipated that there would be no impact on existing pipelines. As stated previously, there would be coordination with pipeline owners/operators regarding project facilities during the design phase to avoid interference or interruption of service (Delta Conveyance Design and Construction Authority 2022c:10, 2022d:6).

All of the alternatives could cross and potentially conflict with existing telecommunication lines. The two Supervisory Controls and Data Acquisition (SCADA)/Communications Routing and Basic Design Approach Technical Memoranda from the C-E EPR and Bethany EPR (Delta Conveyance Design and Construction Authority 2022g:8, 2022h:2) describe the design approach for the communications criteria and physical characteristics to establish communication routes for the project. According to the technical memoranda, the data communications network would connect three data centers, intakes, and remote data sites to the existing communications grid. Some links would be established through leased lines, and in some cases new fiber optic cable would be installed overhead on existing pole lines or in dedicated conduits along existing and future road and conveyance canal rights-of -way. Installation options are overhead or buried along project access and public roads, with the preferred option being underground. Wherever possible, the construction of fiber optic–based communications systems for the project would use existing telecommunications infrastructure, dedicated conduits within public roads and planned project-specific road modifications, and termination panels inside or on the buildings or structures. The two SCADA/Communications Routing and Basic Design Approach technical memoranda provide further information on potential fiber optic routes to establish the network and SCADA connections for the project facilities (Delta Conveyance Design and Construction Authority 2022g, 2022h).

Due to the nature of underground construction, the exact location of underground utilities cannot be guaranteed based on construction documents but can only be determined by careful probing

including use of potholing technology during design phase, in compliance with Article 6 of the Cal/OSHA Construction Safety Orders. Underground Service Alert, a service which provides utility location services, is not available until the time of design utility efforts. Construction activities for all alternatives, including ground disturbing activities such as site grading and trenching, could result in damage to or interference with existing electric, natural gas, and telecommunication lines and, in some cases, could require that existing lines be permanently relocated, potentially causing interruptions in service. In some cases, disruption of infrastructure and facility operations would be avoided. For instance, most natural gas pipeline crossings are less than 30 feet below ground surface and the top of the proposed tunnels would be installed at or below 100 feet below ground surface, in which case relocation would not occur. At some locations, electrical distribution and transmission lines would require relocation to maintain utility service. DWR is consulting with SMUD, PG&E, and WAPA, and consultations with other utilities would occur during the design phase to avoid interruption to service.

Operations and Maintenance

Water

Operation and maintenance of all alternatives would require water use for basic cleaning and site maintenance of building facilities and other equipment. Additionally, the intakes, South Delta Pumping Plant, and Bethany Reservoir Pumping Plant would include permanent restroom facilities. A potable water system would provide water to pumping plant welfare facilities and safety showers. All water supplies for these demands would be provided by on-site wells. Well-head treatment would be provided to for potable water uses.

Operation of the intakes could result in reverse flows in the Sacramento River. The extent of reverse flows were considered in relation to the operation of the Freeport Regional Water Facility. As described in Chapter 5, *Surface Water*, modeling shows a highly limited effect on flows upstream of the intakes by DCP operation as low flows would occur at very similar frequency with or without DCP operations. Analysis of 15-minute DSM2 results further indicated that flows at Sacramento River at Sacramento Regional Wastewater Treatment Plant are not affected by DCP operation and low flows would occur at very similar frequency with or without DCP operations. Because the Freeport Regional Water Facility is located upstream of the DCP intakes and north of the Sacramento Regional Wastewater Treatment Plant, and reverse flows attributable to project operations are very small in both duration and reverse flow distance, there would be no effect on Freeport Regional Water Facility.

Water needed for project operations is described in the *Volume 1: Delta Conveyance Final Draft Engineering Project Report—Central and Eastern Options* (Delta Conveyance Design and Construction Authority 2022i) and the *Volume 1: Delta Conveyance Draft Engineering Project Report—Bethany Reservoir Alternative* (Delta Conveyance Design and Construction Authority 2022j).

Wastewater Treatment Facilities

Operations and maintenance activities would occur at the intakes and either the Southern Complex or Bethany Complex. Septic tank and leach fields would be located on-site for at least one of the intakes and either at the South Delta Pumping Plant or Bethany Reservoir Pumping Plant, depending upon the project alternative. It is anticipated that operations and maintenance personnel would not

need to work at the tunnel shaft sites or other construction sites except in rare instances of repairs. For those instances, portable restrooms on a trailer would be hauled to the site.

Operation and maintenance-related wastewater would not contribute to the wastewater treatment plant or related infrastructure because the project would construct its own septic tanks and leach fields to handle wastewater treatment, and no impacts on this facility are anticipated.

Operation of the intakes could result in reverse flows in the Sacramento River. The extent of reverse flows were considered in relation to the operation of the Sacramento Regional Wastewater Treatment Plant. As described in Chapter 5, *Surface Water*, modeling shows that flows at Sacramento River at Sacramento Regional Wastewater Treatment Plant are not affected by DCP operation and low flows would occur at very similar frequency with or without DCP operations. Analysis of 15-minute DSM2 results further indicated that flows at Sacramento River at Sacramento Regional Wastewater Treatment Plant are not affected by DCP operation and low flows would occur at very similar frequency with or without DCP operations. Because the Sacramento Regional Wastewater Treatment Plant is located upstream of the DCP intakes, and reverse flows attributable to project operations are very small in both duration and reverse flow distance, there would be no effect on Sacramento Regional Wastewater Treatment Plant.

Stormwater Drainage

For all project alternatives during operations, berms, fiber rolls, silt fences, and other barriers would be constructed around construction sites to prevent runoff from leaving the sites. At the Southern Complex or Bethany Complex, water collected on-site from storm runoff would be diverted to a settling basin with a discharge pipe to ground level outside of the external toe drain around the Southern Complex embankment (Delta Conveyance Design and Construction Authority 2022i:Appendix A, 58). Therefore, the project is not anticipated to impact existing stormwater drainage systems.

Electric Power, Natural Gas, and Telecommunications

Utility service would be required for the operation of all project alternatives. Power demand during operations would include power for mechanical equipment (e.g., operable gates, screen cleaners, pumps), sensors and SCADA systems, and power for on-site buildings and lights. Operations loads would vary slightly depending on the type of fish screen installed at the intake(s). Several sites would require installation of on-site electrical facilities, including substations and switchyards for high-voltage lines and metering areas for lower voltage lines.

For the central and eastern alternatives, SCADA would be used at intakes, tunnel launch shafts, South Delta Pumping Plant, South Delta Outlet and Control Structure, and the California Aqueduct Control Structure to remotely operate equipment, monitor equipment operations and performance, evaluate historical trending analyses, and provide real-time performance information. For the Bethany alternative, SCADA would be used at the pumping plant, the aqueduct, and the discharge structure. Some of the SCADA system would be composed of existing leased lines. In terms of impacts on existing electricity, natural gas, and telecommunications systems, DWR is consulting with these companies on the potential modifications the project would require.

CEQA Conclusion—All Project Alternatives

Water use during construction would come from on-site water supplies. During operations, on-site water supply would be used at the intakes and Southern Complex for the central and eastern alignments. At the Bethany Complex, water from the California Aqueduct would be used. No on-site water supplies are needed at the tunnel shafts. Diversions of surface water and groundwater would be limited to historical diversions, and other methods such as capturing and treating water, and reusing stormwater runoff, would reduce construction water usage to the extent feasible. It is anticipated that construction of all alternatives would have water supply met by nonmunicipal sources without any new water supply entitlements. Wastewater services for construction crews would be provided by temporary portable facilities or septic systems. Construction of all project alternatives would not require or result in the construction of new municipal water or wastewater treatment facilities or expansion of existing municipal facilities. A stormwater pollution prevention plan (SWPPP) would be required for each construction site to minimize runoff. Environmental Commitment EC-4b: *Develop and Implement Stormwater Pollution Prevention Plans* is included to require erosion and sediment control measures are in place during construction, as well as waste management measures, and inspection and monitoring measures. The full text of Environmental Commitment EC-4b can be found in Appendix 3B, *Environmental Commitments and Best Management Practices*. Best management practices would be implemented prior to, during, and after construction and would include site stormwater management, erosion and sediment control, inspection and monitoring, and maintenance. These measures would require that impacts from stormwater runoff are less than significant.

All of the project alternatives would cross existing electric power lines, natural gas, and fuel lines. As stated above, crossings do not constitute an impact, but identify where impacts could potentially occur. As stated in the Summary of Utility Crossings Technical Memoranda in the C-E EPR and Bethany EPR, which describes the oil and natural gas providers and potential conflicts in the study area (Delta Conveyance Design and Construction Authority 2022c:9–10, 2022d:5–6), conflicts with existing utilities under all alternatives are unlikely to occur, as the project elements would be constructed well below existing pipelines. Some existing pipelines may need to be relocated, such as for the work when Byron Highway is realigned. At some locations, electrical distribution lines and feeder lines would require relocation to maintain utility service. However, DWR is consulting with SMUD, PG&E, and WAPA, and consultations with other utilities would occur during the design phase to avoid interruption to service. This impact would be less than significant.

Mitigation Impacts

Compensatory Mitigation

Although the Compensatory Mitigation Plan described in Appendix 3F, *Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources*, does not act as mitigation for public services and utilities impacts from project construction or operations, its implementation could result in public services and utilities impacts.

Compensatory mitigation implemented on Bouldin Island, at the sites of the I-5 Ponds 6, 7, and 8, and tidal wetland and channel margin habitat creation in the North Delta Arc (Appendix 3F), would entail site preparation and staging areas, which could include construction trailers. On-site utilities would be either protected or relocated as needed in coordination with the impacted utility.

Temporary irrigation would be installed for select plantings for the first several years of plant establishment. Improvements such as temporary pumps and piping may be installed. Some compensatory mitigation would be supplemented by surface water. Ongoing water management would be necessary to maintain habitat for certain species.

Various infrastructure modifications, such as protection, removal and/or relocation of existing utilities, pumping systems and other water management structures, would occur as needed, and stormwater would be detained on-site. Other activities that would occur as part of the compensatory mitigation are described in Appendix 3F. Environmental commitments such as EC-4b: *Develop and Implement Stormwater Pollution Prevention Plans* would be implemented to reduce impacts from the Compensatory Mitigation Plan. As stated in Chapter 9, *Water Quality*, the Compensatory Mitigation Plan would not result in substantial impacts.

Impacts from the Compensatory Mitigation Plan would not be substantial and therefore would not change the impact conclusion of less than significant.

Other Mitigation Measures

Other mitigation measures are not anticipated to result in any additional impacts on existing systems analyzed above, but rather would site the design for new power lines, if needed, to avoid sensitive terrestrial and aquatic habitats. As stated above, during the design phase, coordination with owners and operators would occur in order to avoid any interruption of service.

Overall, the Compensatory Mitigation Plan and implementation of other mitigation measures, combined with the project alternatives, would not change the impact conclusion of less than significant.

Impact UT-3: Exceed the Capacity of the Wastewater Treatment Provider(s) that Would Serve the Alternative's Anticipated Demand in Addition to the Provider's Existing Commitments

All Project Alternatives

Project Construction

As stated under Impact UT-2, the project would either use portable restrooms or construct its own wastewater treatment facilities to treat wastewater during construction via septic systems and leach fields. The project would not be served by existing wastewater treatment providers, and therefore there would be no impact on existing facilities.

Operations and Maintenance

As stated under Impact UT-2, the project would construct its own wastewater treatment facilities to treat wastewater during operations and maintenance via septic systems and leach fields or portable restrooms. The project would not be served by existing wastewater treatment providers, and therefore there would be no impact to existing facilities.

CEQA Conclusion—All Project Alternatives

Wastewater generated by all project alternatives would not exceed the capacity of existing wastewater treatment provider systems because the project would entail use of portable restrooms or construction of septic systems to handle wastewater. This impact would be less than significant.

Mitigation Impacts

Compensatory Mitigation

Although the Compensatory Mitigation Plan described in Appendix 3F, *Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources*, does not act as mitigation for public services and utilities impacts from project construction or operations, its implementation could result in public services and utilities impacts.

Generally, construction of compensatory mitigation projects on Bouldin Island and three ponds along I-5 and creation of tidal wetland habitat would entail site preparation and staging areas, which could include construction trailers that would be served by portable restrooms. Other activities that would occur as part of the compensatory mitigation are described in Appendix 3F. The project would entail construction of septic systems including septic tanks and leach fields to treat wastewater. Therefore, compensatory mitigation along with implementation of the project would not burden existing wastewater treatment providers and would not change the conclusion of less than significant.

Other Mitigation Measures

Mitigation measures do not involve wastewater generation or treatment and therefore would not have the potential to exceed the capacity of existing systems.

Overall, the Compensatory Mitigation Plan and implementation of other mitigation measures, combined with project alternatives, would not change the impact conclusion of less than significant.

Impact UT-4: Generate Solid Waste in Excess of Federal, State or Local Standards, or Be in Excess of the Capacity of Local Infrastructure, or Otherwise Impair the Attainment of Solid Waste Reduction Goals

All Project Alternatives

Project Construction

Construction of all project alternatives would generate construction debris and excavated material that could require disposal at a landfill. During construction, spoils and reusable tunnel material (RTM) would be placed in the construction site and not hauled to landfills unless the materials were considered to be hazardous. Hazardous materials would be hauled in appropriate vehicles to licensed disposal sites for the types of hazards present. Dredged materials supporting riprap placement required for intake work would be hauled off-site in barges to a licensed disposal site. *Spoils* are excess excavated native soils associated with tunnel or marine construction. *RTM* is the mixture of saturated soils and biodegradable soil conditioners or additives that would be generated by tunneling operations and are appropriate for reuse based upon chemical characterization and physical properties. *Dredged material* is sediment removed from the bottom of a body of water for the purposes of in-water construction. As described in Chapter 3*, Description of the Proposed Project and Alternatives*, Section 3.4.4, *Reusable Tunnel Material*, DWR would temporarily or permanently store these materials in designated storage areas. It is assumed that the majority of RTM would be able to be stored on-site or transported for reuse as structural fill for later project construction activities. Approximately 1% of RTM is assumed to be unsuitable for reuse.

Construction debris, including debris from structure demolition, power poles, utility lines, piping, and other materials, such as packaging and pallets, would also be generated as a result of construction of the alternatives. The gross square feet (gsf) of demolition quantities assumed for all project alternatives is shown in Appendix 23B, *Air Quality and GHG Analysis Activity Data*, Table 23B-16. Table 21-7 shows the estimated gsf of construction debris generated throughout the duration of the construction period by alternative.

Table 21-7. Estimated Solid Waste during Construction by Alternative (gsf)

Alternative	Intakes	Southern Complex	Bethany Complex	Total
Alt 1	65,000	20,500	N/A	85,500
Alt 2a	96,000	20,500	N/A	116,500
Alt 2b	45,000	20,500	N/A	65,500
Alt 2c	61,500	20,500	N/A	82,000
Alt 3	65,000	20,500	N/A	85,500
Alt 4a	96,000	20,500	N/A	116,500
Alt 4b	45,000	20,500	N/A	65,500
Alt 4c	61,500	20,500	N/A	82,000
Alt 5	65,000	N/A	9,500	74,500

Sources: Appendix 23B, Table 23B-16.
Alt = alternative; N/A = not applicable.

As shown in Table 21-7, Alternatives 2a and 4a would generate the most debris for removal, and Alternatives 2b and 4b would generate the least. Although it is not known specifically which landfills would be utilized during construction of the project, solid waste removal would be expected to occur at several different locations depending on the type of material and its origin. It is standard practice that the construction contractors handle and dispose of all hazardous and nonhazardous materials during construction. In the vicinity of the study area, there are 21 active facilities that can handle solid waste, including 6 solid waste landfills with a remaining permitted capacity of well over 300 million tons, and 18 large volume transfer/processing facilities (see Appendix 21A, *Details of Public Services and Utilities,* Table 21A-6, for each facility's name, location, permitted capacity, remaining capacity, and maximum permitted daily throughput. Proximity of solid waste facilities to the study area is shown in Figure 21-5. According to the California Department of Resources Recycling and Recovery (CalRecycle) Solid Waste Information System, the solid waste landfills that serve the study area have estimated "cease operation" dates ranging between 2016 and 2082.[2] Of the remaining permitted capacity at area landfills, approximately 70% of the capacity is associated with landfills that are not expected to close for 18 to 70 more years (California Department of Resources Recycling and Recovery 2019).

Solid waste from structural demolition would be hauled to local landfills, whereas excavated soil at the intakes would be reused on-site. Excavated from soil from the construction of tunnel shafts, Southern Complex, or Bethany Complex would either be reused or stored on-site or moved for

[2] As defined by the California Department of Resources Recycling and Recovery (CalRecycle), for active disposal facilities, the cease operations date is the estimated date when the facility will reach its permitted capacity. That date is found in or estimated from information in the current permit or permit application for a particular facility, including the approved closure plan for the facility (California Department of Resources Recycling and Recovery 2019).

structural fill at another tunnel shaft site. As stated in Chapter 3, *Description of the Proposed Project and Alternatives*, RTM would not be hauled to a landfill unless testing indicates certain contaminants would be exceeded, in which case it would be hauled to a certified landfill for proper disposal. Of the estimated tons of construction debris that would be generated by the project alternatives, a minimum of 50% of this waste would be recycled or otherwise diverted from landfills to the maximum extent feasible at the time of demolition in keeping with state guidelines. Even without diversion, the construction debris would be a negligible amount of the total remaining permitted capacity of landfills serving the study area and would not be expected to exceed this capacity.

Operations and Maintenance

Operations and maintenance under all project alternatives would not generate a substantial amount of materials that would require disposal at landfills that serve study area. During operations, sediment removed from intakes would be hauled to a landfill in Sacramento. The amount of sediment to be hauled is derived from the data collected in order to quantify emissions in Chapter 23, *Air Quality and Greenhouse Gases*. The total amount of sediment that is anticipated to be hauled for each of the alternatives is shown in Table 21-8 below.

Table 21-8. Estimated Solid Waste during Operations by Alternative (cubic yards/year)

Alternative	Intake Capacity (cfs)	Cubic Yards per Year
2a, 4a	7,500	10,875
2b, 4b	3,000	2,840
2c, 4c	4,500	8,712
1, 3	6,000	10,089
5	6,000	10,098

Source: Chapter 23, Air Quality and Greenhouse Gases
cfs = cubic feet per second.

As shown in Appendix 21A, there are two solid waste facilities in Sacramento, both of which have sufficient capacity to accommodate this waste, both daily and annually. Furthermore, this material would be suitable as alternative material cover under the state's landfill criteria.

During operations, it is also assumed that dredged material from the Southern Forebay would be placed on spoils disposal sites at the Southern Complex. The sediment volumes at the South Delta Pumping Plant or Bethany Reservoir Pumping Plant are not expected to be substantial and would be placed on spoils disposal sites as well.

CEQA Conclusion—All Project Alternatives

Based on the available capacity of landfills in the study area shown in Appendix 21A, and the waste diversion requirements set forth by the State of California, it is expected that the project alternatives would not cause any exceedance of landfill capacity or exceed any state or local standards. RTM resulting from the tunnel excavations would be treated in designated RTM treatment and storage areas. Debris from structure demolition would be diverted from landfills to the maximum extent feasible at the time of demolition. Landfills that serve the study area have the capacity to handle the remaining waste generated by construction activities. Construction of any of the alternatives would not generate solid waste that would exceed the permitted capacity of landfills to accommodate solid

waste disposal needs, nor would it significantly impact the lifespan of the area landfills. This impact would be less than significant.

Mitigation Impacts

Compensatory Mitigation

Although the Compensatory Mitigation Plan described in Appendix 3F, *Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources*, does not act as mitigation for public services and utilities impacts from project construction or operations, implementation of the Compensatory Mitigation Plan could result in public services and utilities impacts.

Solid waste generated by the compensatory mitigation on Bouldin Island, in three ponds along I-5, and the creation of tidal wetland and channel margin habitat in the North Delta Arc (Appendix 3F), are not anticipated to contribute to landfills to the extent of exceeding their capacity or in excess of state or local standards. The compensatory mitigation generally entails habitat creation on existing agricultural lands and would not entail substantial demolition that would require disposal at a landfill in the study area. Earthmoving would not require additional waste facility use because the removed material would remain on-site. As such, potential impacts related to solid waste due to implementation of the project and compensatory mitigation would not change the impact conclusion of less than significant.

Other Mitigation Measures

Some mitigation measures could involve demolition, excavation, and other activities that would generate debris and solid waste that requires removal and could have the potential to result in increased impacts related to solid waste. It is anticipated that any additional soil or material that is excavated would be reused on-site. Any additional structures that are demolished for replacement are not anticipated to be substantial and are expected to be well within the capacity of landfills in the study area shown in Appendix 21A. Furthermore, with the waste diversion requirements set forth by the State of California, it is expected that these mitigation measures would not cause any exceedance of landfill capacity or exceed any state or local standards.

Overall, the Compensatory Mitigation Plan and implementation of other mitigation measures, combined with the project alternatives, would not change the impact conclusion of less than significant.

21.3.4 Cumulative Analysis

The cumulative impact analysis considers projects that could affect public services and utilities and, when appropriate, in the same time frame as the Delta Conveyance Project, result in a cumulative impact. Overall, the cumulative context for public services and utilities including water treatment/distribution, wastewater, stormwater, solid waste, and energy, natural gas, and telecommunications is a 1-mile buffer around the project facilities. For the most part, the study area is rural and contains limited public services and utilities. Public services are generally concentrated in urban areas where population is greater. The study area does contain a network of utilities including water, electricity, natural gas, and telecommunication lines. Public services and utilities could be affected by reasonably foreseeable future projects related to population growth in the study area. It is anticipated that some changes related to public services and utilities in the study

area would take place even assuming that reasonably foreseeable future projects would be designed to avoid such impacts to the extent feasible.

The foreseeable projects listed in Table 21-9 and evaluated for consideration of cumulative impacts include representative projects currently under construction or planned for construction in the Delta region.

Table 21-9. Cumulative Impacts on Public Services and Utilities from Plans, Policies, Programs, and Projects

Program/Project	Agency	Status	Description of Program/Project	Impacts on Public Services and Utilities
Delta Dredged Sediment Long-Term Management Strategy/Pinole Shoal Management Study	USACE	Ongoing	Maintaining and improving channel function, levee rehabilitation, and ecosystem restoration.	Potential for effects on public services and utilities from construction of restoration actions.
Dutch Slough Tidal Marsh Restoration Project	DWR	Ongoing-Phase 3 scheduled for 2022	Restoration of 1,178-acre site in the South Delta to tidal marsh habitat.	The project's potential impacts on police protection, fire protection, water supply, wastewater, storm drainage, and electrical and gas transmission would be less than significant or mitigated to less-than-significant levels.
Prospect Island Tidal Habitat Restoration Project	DWR	Planning phase	Would convert 1,609 acres of flooded uncultivated land to fully tidal habitat.	Potential for impacts on public services and utilities from construction of restoration actions.
Bay Area Stormwater Management Programs	BASMAA member agencies	Ongoing	Implementing stormwater regulations across stormwater management programs within the San Francisco Bay Area.	Could result in direct impacts on stormwater facilities.
Delta Protection Commission *Land Use and Resource Management Plan* Update	Delta Protection Commission	Ongoing	Long-term land use requirements are being developed and will require consistency with local government general plans.	Plan recommendations could result in impacts on utilities and infrastructure.

Program/Project	Agency	Status	Description of Program/Project	Impacts on Public Services and Utilities
Sacramento County General Plan	Sacramento County	Ongoing	Comprehensive document that guides planning in the unincorporated county.	The plan guides population growth in the unincorporated county. Increases in population would result in increased needs for public services and utilities infrastructure.
San Joaquin County General Plan Update	San Joaquin County	Ongoing	Provides guidance for future growth.	Increases in population would result in increased needs for public services and utilities infrastructure. Future growth is generally directed to existing urban communities.
Alameda East County Area Plan	Alameda County	Ongoing	Provides guidance for future growth in the eastern portion of Alameda County.	The East County Area Plan includes policies that set standards for emergency response, fire protection, and police staffing, which could be impacted by population increase.
Contra Costa County General Plan 2005-2020	Contra Costa County	Ongoing	Comprehensive document that guides planning in the unincorporated county.	Establishes standards for police and fire emergency response times and sets fire protection and prevention requirements for development of open space areas.
San Joaquin County, Stockton, and Tracy stormwater management programs (SWMP)	San Joaquin County (Department of Public Works), Stockton (Municipal Utilities Department), Tracy (Water Resources Department), and State Water Resources Control Board	Ongoing	Each of these SWMPs regulates stormwater runoff, discharge, and conveyance. Implements stormwater management programs and permits.	Each of these SWMPs limits the discharge of pollutants from storm sewer systems in certain permit areas; includes BMPs to be implemented and assessed during the permit terms; and addresses construction site stormwater runoff.
Grassland Bypass Project	Bureau of Reclamation and San Luis & Delta–Mendota Water Authority	Ongoing	Prevents discharge of agricultural drainage water into wildlife refuges and wetlands through water conveyance.	New features could result in expansion of San Joaquin River Water Quality Improvement Project facility.

1 BASMAA = Bay Area Stormwater Management Agencies Association; DWR = California Department of Water
2 Resources; EIR = environmental impact report; USACE = U.S. Army Corps of Engineers.

21.3.4.1 Cumulative Impacts of the No Project Alternative

The ongoing projects and programs in the Delta under the No Project Alternative in addition to the cumulative projects would require construction to either construct new facilities or implement restoration and habitat enhancement goals. SWP/CVP operations would require repair, maintenance, or protection of infrastructure such as levees, and may also include actions for water quality management, habitat and species protection, and flood management. These continuing actions could occur throughout the study area and are unlikely to result in substantial population increase that would affect public services and utilities by requiring expansion or construction of new facilities. These actions are also unlikely to involve construction that would physically conflict with an existing public service such as a police or fire station. Construction could result in impacts on utilities, such as contributing solid waste to a landfill; however, these ongoing projects including construction and operations are assumed to adhere to state and local waste reduction goals related to recycling and waste diversion and are not anticipated to generate a great deal of solid waste. Construction could also result in conflicting with existing electric and natural gas lines; however, these impacts would be temporary and short-term.

21.3.4.2 Cumulative Impacts of the Project Alternatives

All project alternatives involve construction that could affect public services and utilities. Impacts on public services and utilities in combination with other present and probable future projects and programs that require similar construction in the study area (Table 21-9) could result in a substantial cumulatively significant impact on public services and utilities if they result in a significant increase in population.

However, the project would not result in an increase in population that would necessitate expansion or construction of public services and utilities. Similarly, the projects in Table 21-9 are related to restoration and land management and are not the types of projects that would result in population increase; the construction work as well as operations and maintenance associated with these projects would be performed by the existing labor force in the vicinity.

All project alternatives would generate some solid waste during construction, but the project would adhere to current regulations related to waste diversion and recycling, and the many landfills surrounding the Delta have sufficient capacity to handle the solid waste from the project. The restoration projects described in Table 21-9 are anticipated to have similar impacts as the Delta Conveyance Project but to a lesser scale. Restoration and land management activities would also generate solid waste during construction, and it is likely that temporary impacts could occur related to conflicts with existing utilities. Each project's managing agency is tasked with coordinating with service providers to avoid disruptions in service.

The project would not contribute to population growth, and therefore would not result in a cumulatively considerable impact on public services. The project would also not result in significant impacts on utilities. As such, any incremental contribution of the project alternatives to the cumulative conditions with regards to public services and utilities would not be cumulatively considerable.