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8.10 Traffic and Transportation

8.10.1 Introduction

This section presents potential effects of the Cosumnes Power Plant (CPP) project on the transportation system, including any necessary modifications and increases in traffic from construction and operation of the proposed facility. Descriptions of the existing transportation system and levels-of-service (LOS) are presented, along with an analysis of potential direct, indirect, and cumulative impacts.

Section 8.10.2 presents applicable laws, ordinances, regulations and standards (LORS); Section 8.10.3 discusses the affected environment; Section 8.10.4. discusses environmental consequences of construction and subsequent operation of the facility; Section 8.10.5 describes the cumulative impacts; Section 8.10.6 describes proposed mitigation measures to be implemented during construction and operation; Section 8.10.7 provides a list of agency contacts; Section 8.10.8 lists required permits and provides a schedule; and Section 8.10.7 contains references.

8.10.2 Laws, Ordinances, Regulations, and Standards

LORS related to traffic and transportation are summarized in the following subsections.

8.10.2.1 Federal

- The Hazardous Materials Transportation Act of 1974, 49 Code of Federal Regulations (CFR) 397.9 directs the U.S. Department of Transportation to establish criteria and regulations for the safe transportation of hazardous materials.
- 49 Code of Federal Regulations, Chapter II, Subchapter C and Chapter III, Subchapter B: Standards for the transportation of hazardous materials are covered in Chapter II, Subchapter C. National safety standards for the transport of goods, materials, and substances over public highways are addressed in Chapter III, Subchapter B, Parts 171-173, 177-178. The California Department of Transportation (Caltrans) administers these requirements. Title 49, Code of Federal Regulations, Sections 350-399, and Appendices A-G, Federal Motor Carrier Safety Regulations, addresses safety considerations for transporting goods, materials, and substances over public highways.

8.10.2.2 State

State laws that apply to this project include the following sections of this California Vehicle Code (unless otherwise noted):

- California Vehicle Code, Sections 31303-31309, regulates the highway transportation of hazardous materials, routes used, and restrictions. California Vehicle Code Section 31303 requires hazardous materials to be transported on state or interstate highways that offer the shortest overall transit time possible.
- Sections 31600-31620 regulate the transportation of explosive materials.
- Sections 32000-32053 regulate the licensing of carriers of hazardous materials and include noticing requirements.

- Sections 32100-32109 establish special requirements for the transportation of substances presenting inhalation hazards and poisonous gases. California Vehicle Code Section 32105 requires shippers of inhalation or explosive materials to contact the California Highway Patrol (CHP) and apply for a Hazardous Material Transportation License. Upon receiving this license, the shipper will obtain a handbook specifying approved routes.
- Sections 34000-34121 establish special requirements for transporting flammable and combustible liquids over public roads and highways.
- Sections 34500, 34501, 34501.2, 34501.3, 34501.4, 34501.10, 34505.5-7, 34506, 34507.5, and 34510-11 regulate the safe operation of vehicles, including those used to transport hazardous materials.
- Sections 25160 *et seq.* address the safe transport of hazardous materials.
- Sections 2500-2505 authorize the issuance of licenses by the Commissioner of the California Highway Patrol transport hazardous materials, including explosives.
- Sections 13369, 15275, and 15278 address the licensing of drivers and classifications of licenses required to operate particular types of vehicles. In addition, certificates permitting the operation of vehicles transporting hazardous materials are required.
- California Streets and Highways Code, Sections 117 and 660-72, and California Vehicle Code, Sections 35780 *et seq.*, require permits to transport oversized loads on county roads. California Streets and Highways Code Sections 117 and 660 to 711 requires permits for any construction, maintenance, or repair involving encroachment on state highway rights-of-way. California Vehicle Code Section 35780 requires the approval for a permit to transport oversized or excessive loads over state highways
- California Street and Highways Code, Sections 660, 670, 1450, 1460 *et seq.*, 1470, and 1480, regulates right-of-way encroachment and granting of permits for encroachments on state and county roads.
- California State Planning Law, Government Code Section 65302, requires each city and county to adopt a General Plan, consisting of seven mandatory elements, to guide its physical development. Section 65302 (b) requires that a circulation element be one of the mandatory elements.

All construction in the public right-of-way will need to comply with the "Manual of Traffic Controls for Construction and Maintenance of Work Zones" (Caltrans, 1996).

8.10.2.3 Local

The transportation elements of local plans applicable to the Cosumnes Power Plant project are summarized in this section.

- **Sacramento County General Plan, 1999,** identifies transportation and circulation designations, policies, and implementation measures. The plan identifies roadway definitions, level of service standards, and other transportation modes, including transit, bicycle, rail, and air service. The Sacramento County's policies related to traffic and circulation needs are identified.

- **1999 Metropolitan Transportation Plan** adopted by the Sacramento Area Council of Governments establishes regional transportation goals, policies, objectives, and actions for various modes of transportation, including intermodal and multimodal transportation activities.

The following plans and programs describe the regional setting including highways and roads, public transportation, bicycle facilities, railroad operations and transportation operations in the area of the CPP project site. The project site is in Sacramento County and under the jurisdiction of the Sacramento County General Plan. Table 8.10-1 summarizes relevant policies for the Sacramento County transportation circulation element of the General Plan.

TABLE 8.10-1
Relevant Policies for the Sacramento County General Plan and Metropolitan Transportation Plan

Relevant Policies
Sacramento County will assess fees on new development sufficient to cover the fair share portion of that development's impacts to the regional transportation system that is not covered by other funding sources.
Sacramento County will utilize design and development standards that support travel by transit, walking, bicycling, and clean alternative fuel and low emission vehicles.
Sacramento County will develop a broad range of demand reduction measures designed to induce efficient use of existing roads, bridges, and parking facilities. Implementation measures may include congestion pricing for roads, bridge tolls, revised parking fees, and other user charges.
Sacramento County shall apply the following LOS standards for planning roads in the unincorporated area: 1. Rural collectors: LOS D; 2. Urban area roads: LOS E; and may proceed with additional capacity projects within the scope of the adopted Transportation Plan when the Board of Supervisors has determined that implementation of all feasible measures that will reduce travel demand in the affected corridor will not provide the target level of service.
New development that results in levels of service that are worse than those standards in CI-22 or the 1993 LOS, whichever is worse, will not be approved unless traffic impacts are mitigated. Such mitigation may be in the form of (1) capacity improvements to either the roadway system, the transit system, or both, or (2) demand reduction measures included in the project design, or operation, or both.
Sacramento County will regulate truck travel as appropriate for the transport of goods, consistent with circulation, air quality, congestion management, and land use goals.
Sacramento County will support the development of multimodal centers with passenger facilities for heavy rail, light rail, and bus.
Sacramento County will integrate railroad freight services into regional transportation and economic strategies.

Traffic conditions along the roadway facilities and intersections are evaluated using capacity and LOS. Level-of-service is a qualitative measure of operating conditions within a traffic stream. LOS are defined for each type of facility and range from LOS/A to F, with A representing the best operating conditions and F representing the worst. Analysis procedures for evaluating LOS for each type of facility are based on the Highway Capacity Manual.

8.10.2.4 Compliance with Laws, Ordinances, Regulations, and Standards

All applicable LORS and administering agencies are summarized below. Table 8.10-2 describes how CPP will comply with all LORS pertaining to traffic and transportation impacts.

TABLE 8.10-2
Compliance with Laws, Ordinances, Regulations, and Standards

Authority	Administering Agency	Requirements	Compliance
49 CFR, Chapter II, Subchapter C and Chapter III, Subchapter B	US Department of Transportation and California Department of Transportation (Caltrans)	Requires proper handling and storage of hazardous materials during transportation.	Project and transportation will comply with all standards for the transportation of hazardous materials.
California Vehicle Code Section 31300 et seq.	Caltrans	Requires transporters to meet proper storage and handling standards for transporting hazardous materials on public roads.	Transporters will comply with standards for transportation of hazardous materials on state highways during construction and operations. The project will conform to Vehicle Code Section 31303 by requiring that shippers of hazardous materials use the shortest route possible to and from the project site.
California Vehicle Code Section 31600 – 31620	Caltrans	Regulates the transportation of explosive materials.	The project will conform to California Vehicle Code 31600 – 31620.
California Vehicle Code Section 32000 – 32053	Caltrans	Regulates the licensing of carriers of hazardous materials and includes noticing requirements.	The project will conform to California Vehicle Code 32000 – 32053.
California Vehicle Code Section 32100 – 32109; 32105.	Caltrans	Establishes special requirements for the transportation of substances presenting inhalation hazards and poisonous gases. Requires that shippers of inhalation or explosive materials contact the California Highway Patrol and apply for a Hazardous Material Transportation License.	The project will conform by requiring shippers of inhalation or explosive materials to contact the CHP and obtain a Hazardous Materials Transportation License.
California Vehicle Code Section 34000 –34121.	Caltrans	Establishes special requirements for the transportation of flammable and combustible liquids over public roads and highways.	The project will conform to California Vehicle Code 34000 – 34121.
California Vehicle Code Sections 34500, 34501, 34501.2, 34501.3, 34501.4, 34501.10, 34505.5-7, 34506, 34507.5 and 34510-11.	Caltrans	Regulates the safe operation of vehicles, including those used transport hazardous materials.	The project will conform to these sections in the California Vehicle Code.

TABLE 8.10-2
Compliance with Laws, Ordinances, Regulations, and Standards

Authority	Administering Agency	Requirements	Compliance
California Vehicle Code Sections 25160 et seq.	Caltrans	Addresses the safe transport of hazardous materials.	The project will conform to these sections in the California Vehicle Code.
California Vehicle Code Sections 2500-2505.	Caltrans	Authorizes the issuance of licenses by the Commissioner of the California Highway Patrol for the transportation of hazardous materials including explosives.	The project will conform to these sections in the California Vehicle Code.
California Vehicle Code Sections 13369, 15275, and 15278.	Caltrans	Addresses the licensing of drivers and classifications of licenses required for the operation of particular types of vehicles. In addition, certificates permitting the operation of vehicles transporting hazardous materials are required.	The project will conform to these sections in the California Vehicle Code.
California Streets & Highways Code Sections 117, 660-711	Caltrans	Requires permits from Caltrans for any roadway encroachment during truck transportation and delivery.	Encroachment permits will be obtained by transporters, as required.
California Vehicle Code Section 35780; California Streets & Highways Code Sections 660-711; 21 CCR 1411.1-11411.6	Caltrans	Requires permits for any load that exceeds Caltrans weight, length, or width standards for public roadways.	Transportation permits will be obtained by transporters for all overloads, as required.
California Street and Highways Code, Sections 660, 670, 1450, 1460 *et seq.*, 1470, and 1480	Caltrans	Regulates right-of-way encroachment and the granting of permits for encroachments on state and county roads.	The project will conform to these sections in the California Vehicle Code.
California State Planning Law, Government Code Section 65302	Caltrans	Project must conform to the General Plan.	Project will comply with Sacramento County General Plan.
Metropolitan Transportation Plan	Sacramento Area Council of Governments	Establishes regional transportation goals, policies, objectives, and actions for transportation in the Sacramento County area.	Project will comply with goals and policies for transportation system. The transportation plan is implemented through the County and Transportation Improvement Program.
Circulation and Transportation Element of the Sacramento County General Plan	Sacramento County	Specifies long-term planning goals and procedures for transportation infrastructure system quality in Sacramento County.	Project will comply with goals and policies for County transportation and traffic system.

CCR California Code of Regulations
CFR Code of Federal Regulations

Truck Routes, Weight and Load Limitations

The California Department of Transportation (Caltrans) weight and load limitations for state highways apply to all state and local roadways. The weight and load limitations are specified in California Vehicle Code Sections 35550 to 35559. The following provisions from the California Vehicle Code apply to all roadways and are applicable to this project.

General Provisions

- The gross weight imposed on the highway by wheels on any vehicle-axle will not exceed 20,000 pounds and the gross weight on any one wheel, or wheels, supporting one end of an axle, and resting on the roadway, will not exceed 10,500 pounds.

- The maximum wheel load is the lesser (a) the load limit established by the tire manufacturer or (b) a load of 620 pounds per lateral inch of tire width, determined by the manufacturer's rated tire width.

Vehicles with Trailers or Semi-trailers

- The gross weight imposed on the highway by the wheels on any one-vehicle axle will not exceed 18,000 pounds, and the gross weight on any one wheel, or wheels, supporting one end of an axle and resting on the roadway, will not exceed 9,500 pounds, except that gross weight imposed on the highway by the wheels on any front-steering axle of a motor vehicle will not exceed 12,500 pounds.

8.10.3 Affected Environment

This section describes existing regional and local roadways. Figure 8.10-1 shows the regional transport setting, and Figure 8.10-2 illustrates major roads, potential access roads, highways, and traffic volumes in the Cosumnes Power Plant project vicinity.

8.10.3.1 Regional Setting

The CPP project site is located on 30 acres on the existing Rancho Seco property in Sacramento County approximately 25 miles southeast of Sacramento. Clay East Road borders the project site to the south. Twin Cities Road is the closest road to the north and west of the project site.

Highways and Roadways

Two state highways serve the project area, including Twin Cities Road and State Route (SR) 99 shown on Figure 8.10-1. These highways are maintained by Caltrans.

Table 8.10-3 identifies the annual average daily traffic (AADT), annual average peak hour traffic, annual average daily truck traffic, percent of truck traffic, highway capacity, and LOS. These traffic estimates are presented for various mileposts or junctions for regional and local roadways in the general vicinity of the CPP project site. LOS criteria for highways are established by Caltrans; these criteria take into account numerous variables, such as AADT, capacity, grade, environment (urban or rural), and other relevant considerations. According to Caltrans policy, LOS D is acceptable for planning purposes. Currently, all state routes potentially affected by the proposed CPP are operating at or above LOS D.

TABLE 8.10-3
Current Traffic Characteristics of Highways in the Project Area

Highway/ Milepost	Location	Annual Average Daily Traffic [a]	Annual Average Peak Hour Traffic [a]	Annual Average Daily Truck Traffic [b]	Percent of Truck Traffic [b]	LOS Standard	LOS
State Route 99							
3.53	Twin Cities, Jct. Rte. 104 East	55,000	4,700	8,820	18	D	C
State Route 104							
0	Twin Cities, Jct. Rte. 99	8,000	860	520	8	D	A
9.22	Clay East Road	3,800	460	N/A	N/A	D	A

[a] Caltrans, 2000.
[b] Caltrans, 1998.
N/A not available

Twin Cities Road is a two-lane roadway that connects the project site to State Route 99 and serves commuters. Twin Cities Road is classified as an arterial roadway, according to Sacramento County (Sacramento County General Plan, December 13, 1999).

Accident Rates

Accidents are generally expressed in terms of accident rate, where accident occurrence is indexed to the amount of traffic using a given roadway. For roadway segments, accident rates are computed as the number of accidents per million vehicle-miles of travel (MVM). The number of accidents reported in the project vicinity and accident rates for selected roadways are presented in Table 8.10-4.

TABLE 8.10-4
Accident History

		Number of Accidents		Accident Rate
Roadway	Section Mile Post	3–Year Total	Average Per Year	MVM
SR 99 [1]	MP 0.1 to MP 7.4 (Beginning of Sacramento County to Dillard Road)	192	64	0.48
SR 104 (Twin Cities Road) [1]	MP 1.1 to MP 17.7 (SR 99 to End of Sacramento County)	55	18	0.81
Clay East Road [2]	Entire Length	2	0.7	N/A

[1] California Department of Transportation, 2001.
[2] Department of California Highway Patrol, 2001.
MP Mile Post
MVM million vehicle-miles

The accident data on state highways (Caltrans, 2001) indicates an average statewide accident rate of 0.68 for the type of roadway corresponding to SR 99 and 1.08 MVM for the type of

roadway corresponding to SR 104. Both SR 99 and SR 104 experience lower than average accident rates.

8.10.3.2 Local Setting

Local Roadways

In the vicinity of the project site, Clay East Road is a two-lane roadway, without turn lanes serving local traffic and residential access. The CPP project site will be accessed from Clay East Road. Clay East Road is classified as a collector roadway, according to Sacramento County (Sacramento County General Plan, December 13, 1999).

Sacramento County (Sacramento County General Plan, December 13, 1999) has adopted LOS D or better on rural collectors and LOS E in urban areas as the acceptable LOS standard for planning purposes. The existing LOS for Clay East Road is LOS A, which meets the acceptable LOS D or better.

The nearest intersection to the project site is the intersection of Clay East Road at Twin Cities Road. This intersection is an unsignalized intersection, which typically has low traffic levels during non-peak traffic. During morning and evening peak hours, the intersection of Clay East Road at Twin Cities Road operates at an existing LOS B.

Public Transportation

Public transit in Sacramento County consists of local and inter-city bus service and inter-city rail service. Public transportation services include:

- Local buses
- Light Rail transit
- AMTRAK
- Greyhound bus services
- Metro airport service

The existing Greyhound bus service in Sacramento County provides linkages to local bus routes, light rail, AMTRAK, and Metro Airport.

Bicycle Facilities

A number of bike lanes, bike routes, and bike paths are provided throughout Sacramento County. The Sacramento County Bikeways Master Plan identifies projects to improve the bicycle network and bikeways for recreational use.

Railroad Operations

The Union Pacific Railroad (UPRR) operates the active main line tracks that border Twin Cities Road to the north. An active railroad spur crosses Twin Cities Road to the existing Rancho Seco Plant site.

Transportation Improvements

Long-range improvements planned for the regional transportation system in and around Sacramento County include the 2000/01 Metropolitan Improvement Program Project List, Sacramento Area Council of Governments:

- Route 99 – construct new maintenance facility near Elk Grove

- Twin Cities Road – widen the Twin Cities Road overpass to four lanes at Route 99 with the addition of bike lanes
- Construct bicycle and pedestrian facilities improvements as identified
- Rehabilitate local road pavement rehabilitation in various areas throughout Sacramento County
- Sacramento County Road Rehabilitation – resurface and rehabilitate minor and principal arterial roadways throughout Sacramento County
- Galt Rehabilitation Projects – rehabilitate roadways at various locations

These improvements are long-range regional transportation improvements in and around Sacramento County that are not needed for the proposed CPP project. Therefore, a figure is not needed to show the region's long-range transportation improvement projects.

Site Access

Project access will be from Clay East Road. The proposed route for access to the CPP site for construction and operational activities will be from Clay East Road and Twin Cities Road. The proposed truck route is from Clay East Road to Twin Cities Road to SR 99.

8.10.4 Environmental Consequences

This section describes the impacts of the CPP project. Section 8.10.4.1 presents the significance criteria; Section 8.10.4.2 discusses environmental impacts of the construction phase; and Section 8.10.4.3 discusses impacts of operation and maintenance.

8.10.4.1 Significance Criteria

According to the California Energy Commission (CEC) Staff Application for Certification (AFC) Instructions and those set forth in Appendix G of the California Environmental Quality Act (CEQA) Guidelines, a project results in a significant transportation impact when it will:

- Cause a substantial increase in traffic in relation to the existing traffic load and capacity of the street system
- Cause a substantial deterioration of the roadway surface as a result of construction activities
- Substantially increase the traffic delay experienced by drivers
- Substantially alter present patterns of circulation or movement
- Cause traffic hazards for pedestrians or operators of motor vehicles or bicycles

Other potentially significant impacts would include the inability to comply with federal and state regulations governing the transportation of hazardous materials and generation of traffic volumes that violate local LOS standards. State and local concerns regarding traffic analysis focus on avoiding degradation of public highway/road service below an adopted LOS. Both Caltrans and Sacramento County consider LOS D and above acceptable for

planning purposes; any roadway operating at LOS E or F is considered unacceptable, and such conditions must be mitigated to an acceptable LOS.

8.10.4.2 Construction Phase Impacts

The following methods and assumptions were used to estimate the construction phase impacts associated with the CPP facility and proposed linear routes.

Construction of CPP, including the linear routes and pipeline will take approximately 44 months, from winter 2002 to summer 2006. Phase 1 is anticipated to take 24 months to complete, and Phase 2 is expected to be completed in 18 months, with a 2-to 3-month idle period between phases. The construction workforce required to build the CPP facility most likely will be drawn from the local labor pool in Sacramento and San Joaquin counties. Most of the construction labor force probably will be drawn from the local area and will commute daily less than 1 hour each way to reach the job site; almost all the workforce is anticipated to commute 60 miles or less. The project will require a total peak construction workforce of 381 workers during months 12 (Phase 1) and 35 (Phase 2) of the construction period, which includes both facility and pipeline construction. Fewer construction workers are expected during Phase 2 of the construction. For the plant construction, the peak workforce is 328 workers in month 12 for Phase 1 and month 35 for Phase 2 (refer to Section 8.8, Socioeconomics). The calculated workforce vehicle trips associated with construction of the CPP plant and all linear routes including the pipeline construction are based on these assumptions.

Construction Workforce Vehicle Trips

Clay East Road, Twin Cities Road, and SR 99 are the most likely primary roadways to and from the project site. As primary access roads to the site, Clay East Road and Twin Cities Road will experience the greatest volume of construction traffic.

The average, non-peak, daily workforce during construction—including construction, testing and plant staff—is estimated at 200 workers for both phases. Based on 1990 census data, the average vehicle occupancy (AVO) is estimated at 1.3 persons per vehicle during commute hours. Using this occupancy rate, approximately 300 average daily trips and 150 p.m. peak hour trips will be generated by the average, non-peak construction traffic with a reduction in trips as the construction reaches completion. All vehicles will park off public roadways in the staging and parking areas of the site.

The peak daily workforce is assumed to be 381 workers during month 12 of Phase 1 and month 35 of Phase 2 of the construction period. Using an AVO of 1.3 persons per vehicle during commute hours, an additional 590 daily trips and 295 trips during the p.m. peak hour will be generated by peak construction period during months 12 and 35 as shown in Table 8.10-5.

TABLE 8.10-5
Total Daily Construction-Related Vehicle Trip Generation [a]

Average Work Force	Average Vehicle Trips	Peak Workforce	Peak Vehicle Trips
200 workers	300 daily trips	381 workers	590 daily trips

[a] This analysis assumes an AVO of 1.3 persons per vehicle.

Construction workforce traffic would generally occur between 5:30 a.m. and 7 a.m. and between 3:30 p.m. and 5:30 p.m. During the peak construction period (estimated to occur during month 12 of Phase 1 and month 35 of Phase 2 of construction), construction-related traffic will increase on Twin Cities Road. On all other state routes, construction-related traffic will increase by less than 5 percent. The traffic impact is not considered significant, because the CPP facility would not lower the existing LOS of local highways. Also, construction-related increases would be short-term, occurring mostly during the peak construction period.

On local roadways, the existing LOS on nearby sections of Clay East Road and Twin Cities Road range from A to D. However, traffic generally has free flow on these sections of roadway during the non-peak hours. Construction workforce traffic would generally occur between 5:30 a.m. and 7 a.m. and between 3:30 p.m. and 5:30 p.m.

Based on projected peak construction traffic volumes during peak periods, traffic impacts are insignificant. The LOS at the intersection of Twin Cities Road and Clay East Road in the p.m. peak hour is LOS B without project and LOS C with project. This analysis assumes the intersection of Twin Cities Road at Clay East Road is an unsignalized intersection.

Table 8.10-6 summarizes the LOS along Clay East Road, Twin Cities Road and SR 99 with the addition of peak construction project traffic volumes during peak periods.

TABLE 8.10-6
Peak Construction Project Traffic Volumes and LOS on Roadways in the Project Area

Location	Annual Average Daily Traffic [a]	Annual Average Peak Hour Traffic	Peak Project Construction Traffic	Peak Hour Traffic plus Project	Existing LOS	LOS with Peak Project Construction
State Route 99	55,000	4,700 [a]	160	4,860	C	C
State Route 104	3,800	460 [a]	300	760	A	B
Clay East Road	N/A	50	305	355	A	A

[a] Caltrans, 2000.
N/A not available

Therefore, LOS D or better is maintained in the p.m. peak hour with or without the project. Based on projected project traffic volumes, construction of the project may contribute to minor delays on the existing roadway network or affect traffic circulation in the area. However, the temporary nature of these potential construction-related impacts, combined with appropriate mitigation measures, should keep potential traffic impacts at a level of insignificance.

Construction Equipment and Material Deliveries

Construction of the CPP facility will require the use and installation of heavy equipment and associated systems. Construction materials will be delivered continuously to the site by trucks. The number of trucks used during construction is expected to be low. An estimated 10 trucks will be used on a daily basis during construction. Most major pieces of construction equipment will remain on the project site right-of-way during construction. A

conservative, worst case maximum estimate of daily trucks used during the peak is around 20 trucks daily.

The vehicles used to transport heavy equipment and construction materials will require transportation permits when they exceed the size, weight, width, or length thresholds set forth in Section 35780 of the California Vehicle Code, Sections 117 and 660-711 of the California Streets and Highways Code, and Sections 1411.1 to 1411.6 of the California Code of Regulations. Affected vehicles will be required to obtain transportation permits from Sacramento County and Caltrans.

Only a small percent of truck trips with consumable material deliveries, including some amount of hazardous materials (solvents, lube oils, paint, paint thinners, adhesives, batteries, construction gases, etc.) in their original manufacturer containers is anticipated. The estimated number of deliveries of consumable materials, including some amount of hazardous materials, is twice a week. Of the estimated truck deliveries with hazardous materials, total quantities of hazardous materials and subsequent public risk is expected to be less than significant. Hazardous wastes would be sent from the site to treatment or disposal facilities every 90 days. Proper containers and transportation procedures that conform to applicable Caltrans requirements will be used for all material and waste shipments (i.e., 49 CFR Chapters II, III; California Vehicle Code Section 31300, et seq.). No acutely hazardous materials will be used or stored on-site during construction. Because of the small quantities of hazardous materials involved, separate truck deliveries of hazardous materials during construction are unlikely.

The average increase of 10 additional daily truck trips (with 20 truck trips maximum) on state routes in the CPP area is minor compared with existing truck traffic on these routes and will represent a minimal increase in truck traffic along proposed routes of travel. Therefore, the impact of truck traffic on state routes is less than significant.

The average increase of 10 additional daily truck trips (with 20 truck trips maximum) on local roads in the CPP area is minor compared with existing truck traffic on these roads and will represent a minimal increase in truck traffic along the proposed routes of travel. Due to the size and weight of these trucks, the increase in truck traffic will contribute to the wear on the roads and will increase the need for regular roadway maintenance. However, the increase in project-related roadway wear and tear is not considered significant.

Construction debris and small quantities of hazardous wastes will be generated during construction (see Section 8.13, Waste Management). During construction, a minimal number of truck trips per month will be required to haul waste for disposal. Transportation of hazardous materials to and from the CPP site will conform with California Vehicle Code, Section 31300. Because the transport of hazardous wastes will conform with relevant transportation regulations, no significant impact is expected.

CPP is considering the use of an active rail spur from existing UPRR tracks that enter the Rancho Seco Plant for the shipment of heavy equipment. The spur would be used to offload major equipment to a lowboy trailer on the Rancho Seco Plant site. The truck/trailer could use the back gate at the power plant site and internal roads to haul the equipment approximately one-half mile to the CPP project site.

All road-crossing construction activities will be according to local, state, and federal regulatory requirements and specifications. Adequate barricades and lights will be provided

around excavations at crossings, according to Caltrans "Manual of Traffic Controls for Construction and Maintenance of Work Zones" and California Vehicle Code Section 21400. The use of the UPRR active rail spur and grade crossing at Twin Cities Road will be according to UPRR and CPUC requirements.

The proposed laydown areas for CPP site are located adjacent to the proposed project site off Clay East Road. Construction equipment and materials will be stored and stockpiled on the potential laydown areas. Safe practices for moving equipment and materials to the project site from the laydown areas will be implemented.

The proposed linear routes consist of a proposed gas line from the Carson Ice-Gen facility. The proposed gas line primary and alternate routes cross roadway sections, railroad alignments, rivers, and creeks and are described in Sections 2.0 and 6.0. The construction of the proposed gas line route will have associated traffic impacts. One of the selection criteria for selecting the proposed pipeline route is minimizing impact to local and regional traffic. The gas line route may require one traffic lane closure at a time along the proposed route.

Access during pipeline construction will be along existing roads and rights-of-way. Damage to existing roads by construction activity will be repaired to the original condition, or as near as possible to the original condition.

A construction management plan will be developed for this project.

8.10.4.3 Operation and Maintenance Phase Impacts

The operation of the CPP facility will require up to 20 full-time personnel for both phases during 24-hour operations. The proposed CPP facility is expected to begin full commercial operation for Phase 1 in the first quarter of 2005. The estimated number of trips for the operation of both phases is 20 p.m. peak hour trips and 40 daily trips.

The number of full-time personnel for the proposed CPP facility is much less than the number of full-time personnel required for the previous operation of Rancho Seco Plant. Therefore, no additional vehicle trips per day will be generated on Twin Cities Road as a result of the CPP as compared to prior usage of the site. However, additional truck trips are associated with delivering hazardous and non-hazardous materials to the CPP site and hauling waste generated during the CPP facility operations.

During the operation of the proposed CPP, a minimal number of hazardous materials deliveries would occur. Anticipated travel routes for hazardous materials delivery will be along East Clay Road, Twin Cities Road, and SR 99.

Some hazardous materials generated at the proposed CPP site during plant operations will be transported to a Class I landfill for disposal or transported off-site for recycling. It is estimated that hazardous wastes generated at the site will be transported off-site for disposal about once every 90 days by licensed hazardous waste transporters. Overall, the number of transport trips would be minimal.

Aqueous ammonia is considered a potential inhalation hazard. Sulfuric acid and various cleaning chemicals are considered hazardous materials. According to Division 13 Section 31303 of the California Vehicle Code, the transportation of hazardous materials will be on the state or interstate highways that offer the shortest overall transit time possible.

Division 14.3 Section 32105 of the Vehicle Code specifies that unless there is not an alternative route, every driver of a vehicle transporting inhalation hazards will avoid, by prearrangement of routes, driving into or through heavily populated areas, congested thoroughfares, or places where crowds are assembled.

Transporters of inhalation hazardous or explosive materials must contact the CHP and apply for a Hazardous Material Transportation License. Upon receiving this license, the shipper will obtain a handbook, which will specify the routes approved to ship inhalation hazardous or explosive materials. Operating convenience is not a consideration. The exact route of the inhalation or explosive material shipment will not be determined until the shipper contacts the CHP and applies for a license.

The traffic associated with the operation of the natural gas pipeline would be minimal and limited to preventative maintenance vehicles or repair vehicles required in the event of damage to the lines. The operations and maintenance-related traffic generated by the CPP facility for the natural gas pipeline would be less significant.

Facility operation is not anticipated to include any routine or periodic deliveries via local or regional railroads. Because any such deliveries would be non-routine and limited, no adverse impacts to rail services will occur.

8.10.5 Cumulative Impacts

There are no other known proposed projects whose workforce and/or material deliveries would concurrently travel the same state routes and local roadways. As described previously, the available capacity of regional state routes serving the Sacramento County area shows that the regional transportation system has the capacity to accommodate future traffic, including that resulting from the proposed construction and operation of the CPP facility. Therefore, there are no significant cumulative traffic impacts.

8.10.6 Mitigation Measures

8.10.6.1 Construction Phase

Implementation of the CPP facility would add a moderate amount of traffic to state routes and local roadways during the peak construction period. However, because existing roadway capacity is adequate, these project-related traffic increases will not result in significant impacts.

The construction contractor will prepare a construction traffic control plan and construction management plan that addresses timing of heavy equipment and building material deliveries, signing, lighting, traffic control device placement, and establishing work hours outside of peak traffic periods.

Methods for mitigating potential traffic impacts caused by construction may include such activities as stationing flag persons at the access road into the site and placing advance warning flashes, flag persons, and signage along the roadways associated with the gas pipelines. Access to pipeline construction will be along existing roads and rights-of-way and construction easements. Damage to any roadways opened during the construction of the linear facilities will be repaired to or near their preexisting condition. The construction

contractor will work with the local agencies' engineer to prepare a schedule and mitigation plan for the roadways along the construction routes.

Most trip reduction strategies are not feasible for the construction phase of the project, primarily because of differing schedules of trades persons and the need to transport tools and materials to the job site. However, if necessary, some staggering of the workforce might be possible.

8.10.6.2 Operations and Maintenance Phase

The operations and maintenance-related traffic associated with the CPP facility is considered minimal; state routes and local roadways have adequate capacity to accommodate operations-related traffic. Consequently, no operations-related mitigation measures are required for the CPP facility.

8.10.7 Involved Agencies and Agency Contacts

Table 8.10-7 provides a list of involved agencies and agency contacts.

TABLE 8.10-7
Involved Agencies and Contacts

Agency	Name	Phone Number/Address
Sacramento County	Traffic Control Contact	(916) 875-2785
	Traffic Engineering and Planning	(916) 874-5966
California Department of Transportation	Traffic Control Contact	(916) 265-6737
	Harold Burnett (Single trip permits)	(916) 322-1297
	Dee Garcia (Annual permits)	
City of Citrus Heights	Traffic Control Contact	(916) 727-4700
City of Folsom	Traffic Control Contact	(916) 355-7272
City of Galt	Traffic Control Contact	(209) 745-0575
City of Roseville	Traffic Control Contact	(916) 774-5339
City of Sacramento	Traffic Control Contact	(916) 264-7509

8.10.8 Permits and Permit Schedule

TABLE 8.10-8
Permit Schedule for Traffic and Transportation

Permit	Schedule
Transport oversize or excessive loads over state highways from State Agency	Obtain when necessary, 2-hour processing time (single trip) to 2 weeks (annual trip)
Transportation permit for oversize vehicles from State Agency	Obtain when necessary, same day processing
Transportation permit for oversize vehicles or excessive loads from Sacramento County	Obtain when necessary, same day approval by Street and Traffic Department

8.10.9 References

Caltrans. 2001. 2000 Annual Average Daily Traffic and Traffic Volumes on the California State Highway System.

Caltrans. 2001. 1998 Annual Average Daily Truck and Truck percentages on the California State Highway System.

California Department of Transportation, Traffic Accident Surveillance and Analysis System, 2001.

Department of California Highway Patrol, Statewide Integrated Traffic Records System, 2001.

Caltrans. 2001. Available: www.dot.ca.gov

Sacramento County General Plan, December 13, 1999.

Metropolitan Transportation Improvement Program List. 2000/01. Sacramento Area Council of Governments, June 25, 2001.

Metropolitan Transportation Plan. 1999. Sacramento Area Council of Governments, adopted July 15, 1999.

Union Pacific Railroad. 2001. Available: www.uprr.com

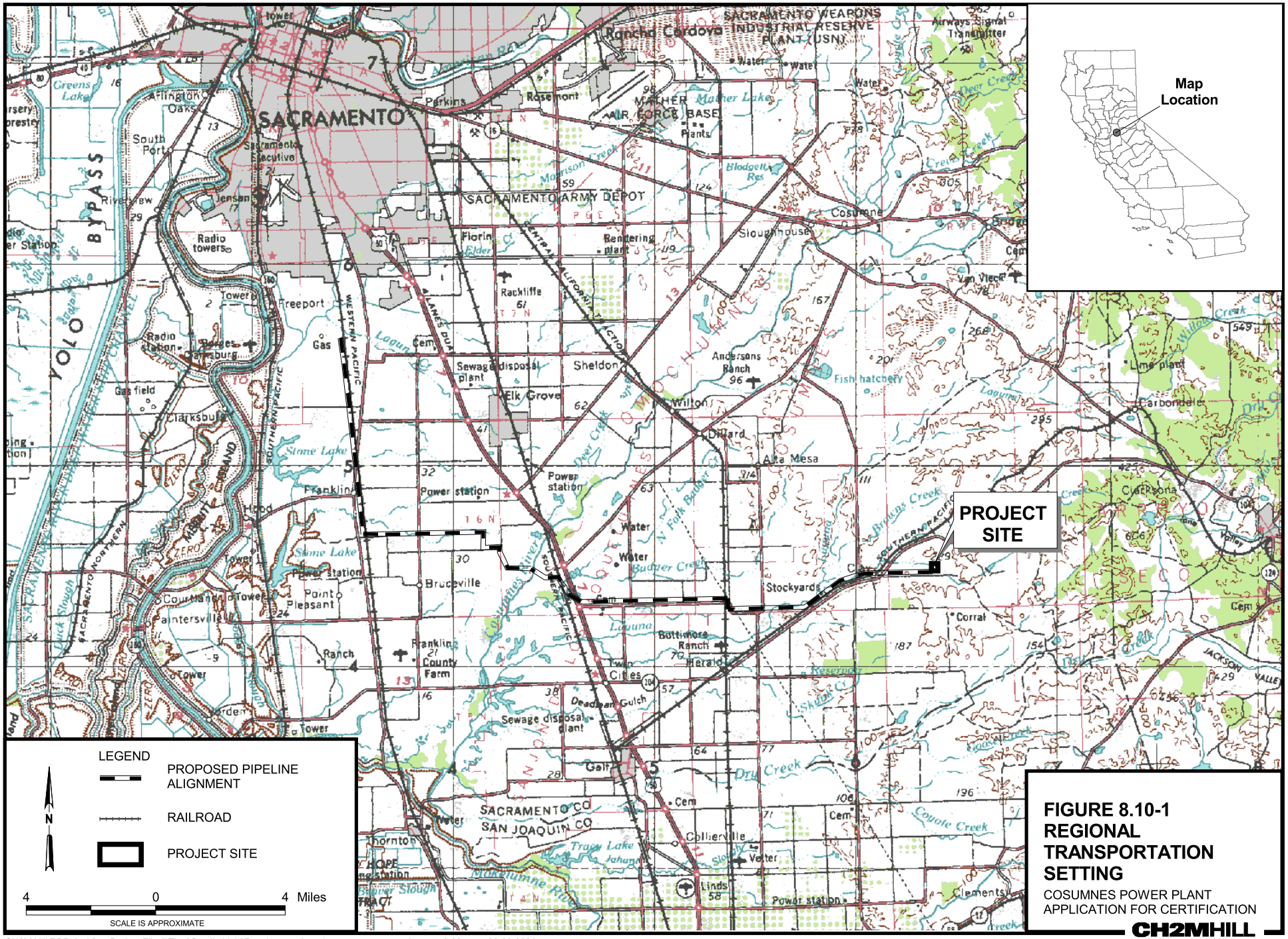

FIGURE 8.10-1
REGIONAL TRANSPORTATION SETTING
COSUMNES POWER PLANT
APPLICATION FOR CERTIFICATION

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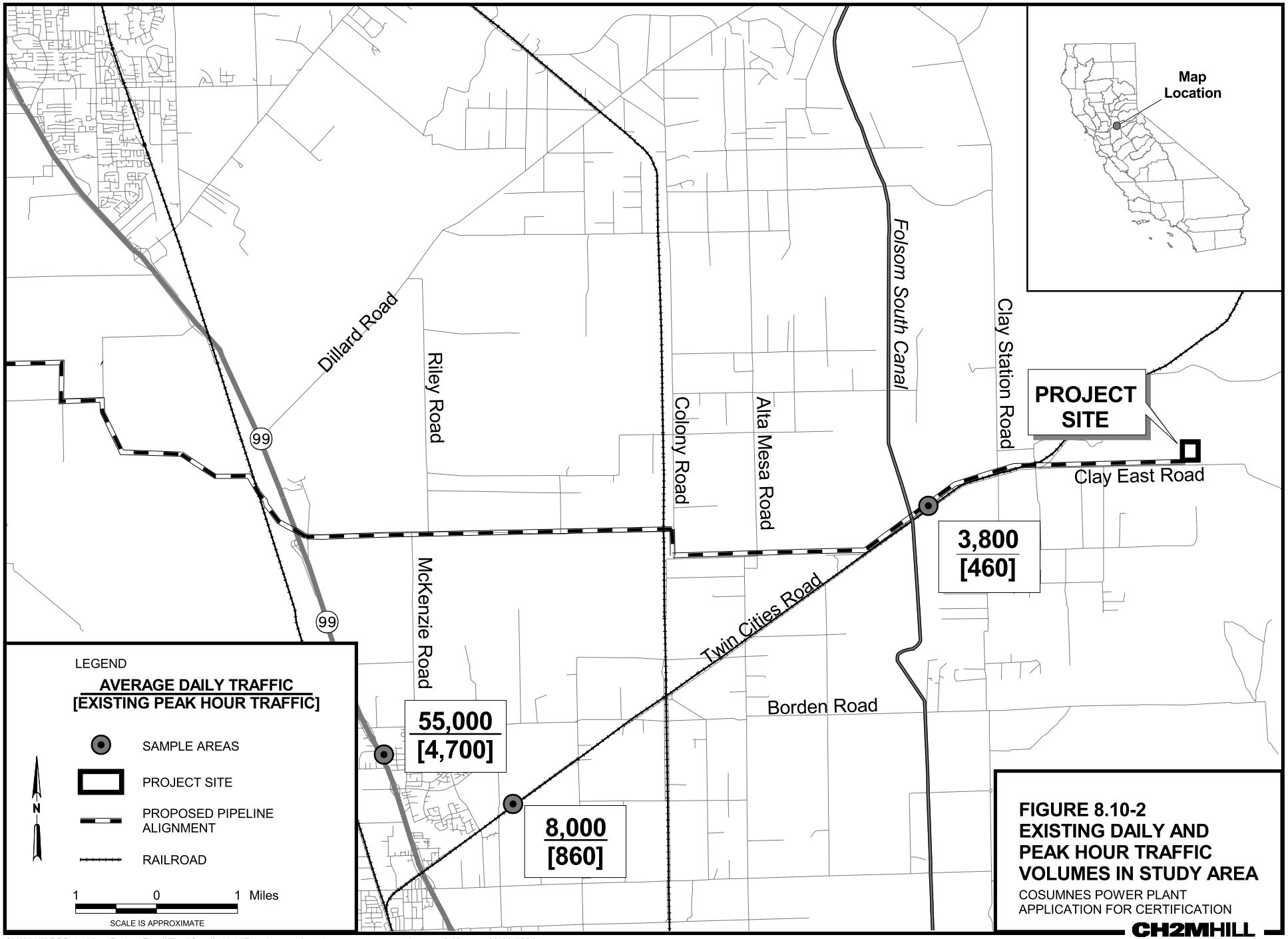

FIGURE 8.10-2
EXISTING DAILY AND PEAK HOUR TRAFFIC VOLUMES IN STUDY AREA
COSUMNES POWER PLANT
APPLICATION FOR CERTIFICATION

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