3.15 Transportation/Traffic

This section describes the environmental setting and regulatory setting for transportation and traffic. It also describes the transportation and traffic impacts that would result from implementation of the program and two individual projects, and mitigation measures that would reduce these impacts where feasible and appropriate.

3.15.1 Existing Conditions

Regulatory Setting

Federal and State

Caltrans is responsible for operating and maintaining all State-owned roadways and interstate highways in California. The California Vehicle Code Division 15 gives Caltrans discretionary authority to issue special permits for the movement of vehicles/loads exceeding statutory limitations on the size, weight, and loading of vehicles. A special permit issued by Caltrans is required to authorize the operation of oversize or overweight trucks, both of which would be required for implementation of the repower program and the subject projects.

Local

Alameda County's ECAP (Alameda County 2000) contains goals and policies to maintain an efficient circulation network in the eastern portion of the county. Goals include creating and maintaining a balanced multimodal transportation system, cooperating with other regional transportation planning agencies, integrating pedestrian use into the transportation system, and mitigating exceedances of level of service (LOS) standards. According to Policy 193, the traffic LOS standard for major intercity arterials is LOS D. The LOS standard adopted by the Alameda County Transportation Commission (CTC), the County's Congestion Management Agency (CMA), for the Congestion Management Program (CMP) and Metropolitan Transportation System (MTS) roadways segments (e.g. I-580, I-680, and SR 84) is LOS E.

LOS standards and travel demand measures, established by the Alameda CTC, are intended to regulate long-term traffic impacts associated with future development, and do not apply to temporary construction projects whose short-term traffic increases end when construction activities end.

Alameda County has not designated local truck routes nor adopted specific policies regarding management of construction activities. Chapter 12.08 of the Alameda County Code regulates roadway use, including issuance of encroachment permits for work within an Alameda County road right-of-way.

Alameda County General Plan

The Alameda County General Plan consists of three area plans that contain the Land Use and Circulation elements for their respective geographic areas, as well as area specific goals, policies and actions for circulation, open space, conservation, safety, and noise. In addition, the General Plan contains Housing, Conservation, Open Space, Noise, Seismic and Safety, and Scenic Route elements

that contain goals, policies, and actions that apply to the entire unincorporated area (Alameda County 2013). Other than the Scenic Route goals and policies that are discussed in Section 3.1, *Aesthetics*, there are no countywide circulation policies related to transportation or traffic issues pertinent to the proposed program and the subject projects. Countywide transportation plans, such as the Countywide Transportation Plan, and policies are primarily developed and maintained by the Alameda CTC, which serves as the County's CMA.

Alameda County East County Area Plan

The Alameda County ECAP contains goals and policies pertinent to transportation and traffic issues on land use involving windfarms and on the area's transportation systems involving general transportation topics, transportation demand management, streets and highways, bicycle and pedestrian paths, and aviation (Alameda County 2000:43, 50–56). Goals in the ECAP are intended to be general statements of a condition Alameda County wants to achieve, and the associated policies are the focused statements of how the County will achieve these goals. The goals and policies listed below are considered relevant to the repower program and the subject projects.

Land Use—Windfarms

Goal: To maximize the production of wind generated energy.

Policy 170: The County shall protect nearby existing uses from potential traffic, noise, dust, visual, and other impacts generated by the construction and operation of windfarm facilities.

Transportation Systems—General Transportation

Goal: To create and maintain a balanced, multi-modal transportation system that provides for the efficient and safe movement of people, goods, and services.

*Policy 179: The County shall adhere to provisions of the Regional Transportation Plan, Countywide Transportation Plan, and County Congestion Management Program, insofar as they are not inconsistent with the Initiative.

Transportation Systems—Transportation Demand Management

Goal: To reduce East County traffic congestion.

Policy 183: The County shall seek to minimize traffic congestion levels throughout the East County street and highway system.

Policy 184: The County shall seek to minimize the total number of Average Daily Traffic (ADT) trips throughout East County.

Policy 185: The County shall seek to minimize peak hour trips by exploring new methods that would discourage peak hour commuting and single vehicle occupancy trips.

Policy 187: The County shall monitor traffic levels according to East County Area Plan and Congestion Management Program objectives.

Policy 188: The County shall promote the use of transit, ridesharing, bicycling, and walking, through land use planning as well as transportation funding decisions.

Policy 190: The County shall require new non-residential developments in unincorporated areas to incorporate Transportation Demand Management (TDM) measures and shall require new residential developments to include site plan features that reduce traffic trips such as mixed use development and transit-oriented development projects.

Policy 191: The County shall work with cities and the Congestion Management Agency to coordinate land use impact analyses.

Transportation Systems—Streets and Highways

Goal: To complete County-planned street and highway improvements that are attractively designed to integrate pedestrian and vehicle use.

Policy 192: The County shall work with Caltrans to improve the interstate and state highway systems and the County road system according to the street classifications shown on the East County Area Plan Transportation Diagram (see Figure 6), consistent with Policy 177.

Policy 193: The County shall ensure that new development pays for roadway improvements necessary to mitigate the exceedance of traffic Level of Service standards (as described below) caused directly by the development. The County shall further ensure that new development is phased to coincide with roadway improvements so that (1) traffic volumes on intercity arterials significantly affected by the project do not exceed Level of Service D on major arterial segments within unincorporated areas, and (2) that traffic volumes on Congestion Management Program (CMP) designated roadways (e.g., Interstate Highways 580 and 680 and State Highway 84) significantly affected by the project do not exceed Level of Service E within unincorporated areas. If LOS E is exceeded, Deficiency Plans for affected roadways shall be prepared in conjunction with the Congestion Management Agency. LOS shall be determined according to Congestion Management Agency adopted methodology. The County shall encourage cities to ensure that these Levels of Service standards are also met within unincorporated areas.

Transportation Systems—Bicycle and Pedestrian Paths

Goal: To include a comprehensive network of bicycle and pedestrian paths in the local and subregional transportation network.

Policy 211: The County shall create and maintain a safe, convenient, and effective bicycle system that maximizes bicycle use.

Policy 214: The County shall require that circulation and site plans for individual developments minimize barriers to access by pedestrians, the disabled, and bicycles (e.g., collectors or arterials separating schools or parks from residential neighborhoods).

Transportation Systems—Aviation

Goal: To ensure the efficient, safe, and economically beneficial operation of the Livermore Municipal Airport.

Policy 217: The County shall require that, where conflicts between a new use and the airport that could interfere with the airport's operations are anticipated, the burden of mitigating the conflicts will be the responsibility of the new use.

Alameda County Congestion Management Program

The Alameda County CMP identifies countywide strategies to respond to future transportation; on needs and procedures to reduce congestion. The CMP identifies existing and desired traffic conditions on a variety of roadways throughout the county. The only CMP-designated roadway that extends through the program area is I-580, which connects to I-680 to the west and I-205 to the east (Alameda County Transportation Commission 2013a:35, Figure 1). The 2012 LOS monitoring study revealed that segments of I-580 in the program vicinity operated at LOS F during peak hours: westbound segment from Greenville Road in the County to Portola Avenue in Livermore during the AM peak hour and eastbound segment from 1st Street in Livermore to North Flynn Road in the County during the PM peak hour (Alameda County Transportation Commission 2013b:12-16).

Alameda Countywide Transportation Plan

The Alameda Countywide Transportation Plan (CWTP) is a long-range policy document that guides transportation funding decisions for Alameda County's transportation system over a 25-year horizon. The CWTP lays out a strategy for meeting transportation needs for all users in Alameda County and includes projects and other improvements for new and existing freeways, local streets and roads, public transit (paratransit, buses, rails, ferries), as well as facilities and programs to support bicycling and walking (Alameda County Transportation Commission 2012a). The CWTP goals for the county's transportation system are as follows.

- Multimodal.
- Accessible, affordable and equitable for people of all ages, incomes, abilities and geographies.
- Integrated with land use patterns and local decision-making.
- Connected across the county, within and across the network of streets, highways and transit, bicycle and pedestrian routes.
- Reliable and efficient.
- Cost effective.
- Well maintained.
- Safe.
- Supportive of a healthy and clean environment.

These goals are then aligned with one or more performance categories and performance measurements. The plan also identifies land use and conservation development strategies.

Alameda County Bicycle and Pedestrian Master Plan for Unincorporated Areas

The Bicycle and Pedestrian Master Plan (Alameda County 2012) describes existing conditions for bicycling and walking, identifies needs for capital and program improvements to support these modes, and recommends improvement projects to enhance bicycling and walking in the unincorporated areas. High priority projects that meet the short-term needs of the communities are identified. Strategies for education, funding and implementation of the recommended projects and programs are also provided. This plan was prepared to update the previous bicycle and pedestrian documents. It provides a vision for bicycling and walking in Alameda County as important alternative transportation modes. The plan also identifies implementable projects that will contribute to a more bicycle and pedestrian-friendly environment for the unincorporated areas.

The Bicycle and Pedestrian Master Plan contains goals and policies for developing and implementing a bikeway system and pedestrian improvements that meet the County's vision for safe, attractive, and convenient opportunities for bicycling and walking for all types of trips and user groups.

Goal 1: Improve bicycle and pedestrian access and circulation for all users as a means to meet the goals of the Alameda County Unincorporated Areas Climate Action Plan.

Goal 2: Create and maintain a comprehensive system of bicycle and pedestrian facilities in the local and sub-regional transportation network in order to establish a balanced multi-modal transportation system.

Policy 2.8: Routinely maintain bicycle and pedestrian facilities and amenities.

- **Goal 3:** Maximize the use of public and private resources for implementing bicycle and pedestrian improvements.
- **Goal 4:** Provide a safer bicycling and walking environment
 - **Policy 4.1:** Monitor bicycle and pedestrian-involved collisions in the Unincorporated Areas and target the high incidence locations for bicycle and pedestrian improvements.
 - **Policy 4.4:** Work with law enforcement officials on education and enforcement programs that increase safety awareness of all road users for bicyclists and pedestrians and that reduce bicycle and pedestrian-involved collisions.
- **Goal 5:** Promote land uses and urban design that support a pleasant environment for bicycling and walking.
 - **Policy 5.2:** Design new development and redevelopment projects to facilitate bicycle and pedestrian access, reduce bicycling and walking trip lengths, and avoid adverse impacts to the bicycle and pedestrian safety, access, and circulation.
 - **Policy 5.3:** Consider options for commercial and industrial development projects to include bicycle storage facilities for employees and customers, shower/locker areas, and other facilities identified in this plan for employees that commute by bicycle. This could include on-site facilities or services available through local partnerships. Encourage including bicycle parking and shower/locker areas in new construction or major remodel projects.
 - **Policy 5.7:** Require that all traffic impact studies and analyses of proposed street changes address impacts on bicycling and pedestrian transportation. Specifically, the following should be considered:
 - Consistency with General Plan and the Bicycle and Pedestrian Master Plan policies;
 - Impact on the existing and future Bicycle and Pedestrian Master Plan Bikeway System;
 - Permanent travel pattern or access changes including the degree to which bicycle and pedestrian travel patterns are altered or restricted due to any change to the roadway network; and
 - Conformity to accepted bicycle and pedestrian facility design standards and guidelines.
- **Goal 6:** Support agency coordination for the improvement of bicycle and pedestrian access.

Environmental Setting

Roadway Network

Roadway access to the program area is provided by highways and local county roadways. Regional access is provided by I-580, a major east-west truck travel route and main throughway in eastern Alameda County that connects I-680 on the west and I-5 on the east (see Figure 1-1). The 2012 annual average daily traffic (AADT) volumes on I-580 in the program area are about 143,000 vehicles per day with about 10.4% of truck traffic (California Department of Transportation 2013). Caltrans annual average daily traffic (AADT) volumes and composition of trucks data for these routes are provided in Table 3.15-1.

Table 3.15-1. Annual Average Daily Traffic Volumes on Regional Access Roadways

Roadway Name	Segment Location	2012 AADT	2012 Truck AADT/ Percent of Total AADT
I-580, in program area	I-205—Greenville Road, Livermore	143,000	14,870/10.4%
I-580, west of Program area	Greenville Road, Livermore— I-680	142,000-214,000	7,550-20,130/4.6%-12.2%
I-580, east of Program area	I-5—I-205	21,000-31,000	3,380-5,330/12.5%-17.9%
I-205, Tracy	I-580—Junction I-5	82,000-114,000	10,560-13,680/11.3%-12.0%
I-680, Dublin	Bernal Avenue, Pleasanton— Alcosta Boulevard, San Ramon	132,000-167,000	8,750-12,690/5.3%-9.2%

Sources: California Department of Transportation 2013.

Major county roads that provide access in the program area include Vasco Road, Altamont Pass Road, and Patterson Pass Road. In addition, Dyer Road, Flynn Road, and Jess Ranch Road provide local access to the windfarms in the program area via Altamont Pass Road and Patterson Pass Road. The recent ADT volumes collated on Patterson Pass Road are about 2,700 to 3,700 vehicles per day (Alameda County Transportation Commission 2013a) and on Altamont Pass Road are about 5,850 to 10,250 vehicles per day (Alameda County Transportation Commission 2013b). The posted speed limits on Patterson Pass Road and the other county roads typically range from 45 to 50 miles per hour (mph) in the program area, with a few segments that allow up to 55 mph, or limit speeds to 40 mph. There have been 47 collisions in the last 5 years on Patterson Pass Road, which represents a relatively high rate and for which safety improvements are very desirable (Alameda County 2013). Many county roads in the vicinity have insufficient road base to support heavy, frequent truck loads (Alameda County Transportation Commission 2013b), including Patterson Pass Road. Average daily traffic volumes have been collected for some of the roads in the program area and are provided in Table 3.15-2.

Table 3.15-2. Average Daily Traffic Volumes on Local Access Roadways in Program Area

Roadway Name	Counter Location	Count Date	Direction	ADT
Patterson Pass Road	East of Greenville Road	East of Greenville Road January 2009-		3,100
	East of South Flynn Road	December 2012		2,700
	East of Midway Road			3,700
Altamont Pass Road	West of Greenville Road	September 2011	Westbound	5,050
			Eastbound	5,200
			Total	10,250
	West of Grant Line Road	September 2011	Westbound	3,550
			Eastbound	2,300
			Total	5,850
Source: Alameda Coun	ty 2013a, 2013b.			

Public Transit

There is no public transit service provided in the program area. To the west of the program area the closest bus service provided is in the incorporated Livermore area by the Livermore Amador Valley Transit Authority. East of the program area, the closest bus service is provided in the City of Tracy by the San Joaquin Regional Transit District. The Altamont Corridor Express (ACE) train is a commuter train service managed by the San Joaquin Regional Rail Commission for weekday travel between Stockton and San Jose. The ACE uses the Union Pacific Railroad (UPRR) tracks through the program area, with grade-separated crossings of I-580 and Altamont Pass Road.

Bikeway/Pedestrian Circulation

Bicycle facilities in the cities and communities of Alameda County are classified into three categories: Class I (bike paths) are described as completely separated, off-street, paved right-of-way (shared with pedestrians) paths, which exclude motor vehicle traffic; Class II (bike lanes) are striped lanes for one-way bike travel on a roadway; and Class III (bike routes) are on-street bike routes without striping. The Bicycle Master Plan, updated in 2012, uses these or similar categories to describe the bikeway network in the unincorporated areas of Alameda County (Alameda County 2012).

The only existing designated bikeway in the program area is the recreational path along the California aqueduct in the northeast portion of the program area, although the Bicycle Master Plan recommends bikeway route additions to the existing bikeway network by designation of new Class IIIC rural bike routes on Altamont Pass Road, Patterson Pass Road, North Flynn Road and South Flynn Road (Alameda County Public Works Agency 2012:3-18, Table 3-10, and 3-25, Figure3-3e) and the East Bay Regional Parks District (EBRPD) Master Plan identifies potential bike trails in the program area that would become part of a larger regional network (East Bay Regional Parks District 2013).

Planned bicycle routes in the area would typically not serve a conventional bicycle commuter function, but primarily are intended as recreational and inter-regional access routes. Notably, the area is host to several annual spring, summer and fall bicycle touring, racing and charity events that utilize these rural bike routes, such as the well-known Amgen Tour of California, various rides by cycling clubs, and the Meals on Wheels ride. In 2013, a portion of Patterson Pass Road in the program area was part of the Stage 7 Route of the Amgen Tour from Livermore to Mount Diablo (Amgen Tour of California 2013).

Air Traffic

There are four airports in the vicinity of the program area: Byron Airport is located about 2 miles north of the program area boundary; Tracy Municipal Airport is located about 6.5 miles east of the program area boundary; Meadowlark Field is located about 3 miles west of the program area boundary; and Livermore Municipal Airport is located about 7 miles west of the program area boundary.

3.15.2 Environmental Impacts

This section describes the impact analysis relating to transportation and traffic for the proposed program and the subject projects. It describes the methods used to determine the impacts of the program 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 accompany the impact discussion.

Methods for Analysis

Implementation of the proposed program, including the Golden Hills and Patterson Pass projects, would replace the existing turbines with fewer and larger turbines. Because of the earthwork volumes involved and the need for deliveries of highly-specialized materials and wind turbine components, construction would intermittently generate substantial volumes of traffic during the decommissioning and installation of wind turbines, and numerous oversize and overweight truck trips. Once the turbines are installed and in operation, maintenance needs would be limited and not substantially greater than currently required; post-construction traffic generation would be well within the capacity of the local roadway system and would not differ materially from current maintenance traffic levels. Analysis of traffic impacts therefore concentrated on construction activities.

Analysis used estimated construction traffic generation (expressed as average trips per day) to develop a qualitative evaluation of short-term impacts on the local and regional roadways in the vicinity of the program area. For the purpose of identifying traffic impacts associated with anticipated projects that could occur in the program area, a typical 80 MW repowering project, based on the review of wind repowering projects in the program vicinity, is assumed for the analysis to estimate the constriction-related vehicle trips. Based on the analysis for Vasco Wind Repowering Project (Contra Costa County 2010) in the program vicinity and data provided by the project applicants, a typical 80 MW repowering project in the program area and Golden Hills project are anticipated to generate an average of 424 vehicle trips per day (304 truck trips and 120 worker trips) during the peak months of the construction period. It is anticipated that worker trips would occur during AM and PM commute hours and truck trips would occur throughout the construction hours (assuming 8 hours per day), which would generate an average of 98 vehicle trips per hour (38 truck trips and 60 worker trips) during the peak commute hours. The Patterson Pass project, a 19.8 MW repowering project, is anticipated to generate an average of 230 vehicle trips per day (150 truck trips and 80 worker trips) during the peak months of the construction period, with an average of 59 vehicle trips per hour (19 truck trips and 40 worker trips) generated during the peak commute hours.

The average daily trip generation for a typical 80 MW repowering project in the program area and two subject projects are shown in Table 3.15-3.

Table 3.15-3. Average Daily Construction Trip Generation Assumptions

	Average Vehicle Trips per Day (one-way) ^a			
Activity	Heavy Duty Light Dut Truck Truck		uty Worker	
Typical Repowering Project in Program Area and Golden Hills Project				
Decommissioning	8	6		
Roads and WTG foundations construction	166	108	120, all construction	
WTG machines, pads, and substation materials delivery and installation	10	6	activity	
Total	184	120	120	424
Patterson Pass Project				
Decommissioning	4	2		
Roads and WTG foundations construction	102	36	80, all construction	
WTG machines, pads, and substation materials delivery and installation	4	2	activity	
Total	110	40	80	230

^a To provide the conservative assessment, the average vehicle trips are estimated for the peak construction months.

Determination of Significance

In accordance with Appendix G of the State CEQA Guidelines, program Alternative 1, program Alternative 2, the Golden Hills project, or the Patterson Pass project would be considered to have a significant effect if it would result in any of the conditions listed below.

- Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for
 the performance of the circulation system, taking into account all modes of transportation,
 including mass transit and non-motorized travel and relevant components of the circulation
 system, including, but not limited to, intersections, streets, highways and freeways, pedestrian
 and bicycle paths, and mass transit.
- Conflict with an applicable congestion management program, including, but not limited to, levelof-service standards and travel demand measures or other standards established by the county congestion management agency for designated roads or highways.
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
- Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Impacts and Mitigation Measures

Impact TRA-1a-1: Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit or conflict with an applicable congestion management program, including, but not limited to, level-of-service standards and travel demand measures or other standards established by the county congestion management agency for designated roads or highways—program Alternative 1: 417 MW (less than significant with mitigation)

Operations

Construction traffic associated with program Alternative 1 would be temporary. Once the new turbines are installed and in operation, maintenance needs would be limited and not substantially greater than currently required; post-construction traffic generated by the maintenance activities would be well within the capacity of the local roadway system and would not differ materially from the current maintenance traffic level. Operation of windfarms in the APWRA is consistent with the Alameda County General Plan, transportation plans, and regulations incorporating assumptions of buildout of the General Plan. Accordingly, program Alternative 1 would not conflict with applicable transportation plans, ordinances, and policies. The traffic impact associated with operation and maintenance of the Alternative 1 would be less than significant.

Construction

Construction of individual repowering projects in the program area associated with Alternative 1 would temporarily increase vehicle traffic on regional and local access routes in the project vicinity and involve the transport of oversize and overweight wind turbine components. Depending on the size of each separate repowering project, construction activities could take place over a time period lasting between 6 and 12 months. As discussed above and summarized in Table 3.15-3, a typical 80 MW repowering project in the program area is anticipated to generate an average of 424 vehicle trips per day (304 truck trips and 120 worker trips) and 98 vehicle trips per hour (38 truck trips and 60 worker trips) during the peak commute hours.

Table 3.15-4 summarizes an estimate of the construction-related trips on regional access highways in the program vicinity. The increase in construction trips is a small fraction (less than 0.5 percent) of ADT on I-580 in the program area and the regional access highways in the program vicinity; accordingly, the construction traffic is not expected to degrade traffic operation on these regional access roadways.

Table 3.15-4. Estimated Construction Trips on Regional Access Roadways—Typical Repowering Project and Golden Hills Project

Roadway Name	Description	2012 AADT	2012 Truck AADT/Percent of Total AADT	Average Daily Construction Trips/Percent of Total AADT	Average Daily Construction Trick Trips/Percent of Total AADT
I-580, in program area	I-205—Greenville Road, Livermore	143,000	14,870/10.4%	212ª/0.1%	152ª/0.1%
I-580, west of Program area	Greenville Road, Livermore—I-680	142,000- 214,000	7,550-20,130/ 4.6%-12.2%	212ª/0.1%	152ª/0.1%
I-580, east of Program area	I-5—I-205	21,000- 31,000	3,380-5,330/ 12.5%-17.9%	106 ^b /0.5%	76 ^b /0.2%-0.4%
I-205, Tracy	I-580—Junction I-5	82,000- 114,000	10,560-13,680/ 11.3%-12.0%	106b/0.1%	76b/< 0.1%
I-680, Dublin	Bernal Avenue, Pleasanton— Alcosta Boulevard, San Ramon	132,000- 167,000	8,750–12,690/ 5.3%–9.2%	53°/< 0.1%	38°/< 0.1%

^a Assumes 50 percent of total daily vehicle trips (424) and total truck trips (304) would originate from west of the program area, from the Livermore area and areas to the west, and 50 percent of the construction traffic would originate from east of the program area, from the Tracy area and areas to the east.

Construction traffic could cause a substantial traffic increase on the local county roads that provide direct access to the project construction sites—e.g., Vasco Road, Altamont Pass Road, Patterson Pass Road, Dyer Road, and Flynn Road—as these roads generally have low traffic volumes. Table 3.15-5 summarizes an estimate of the construction-related trips on major county roads that provide direct access to construction sites (Altamont Pass Road and Patterson Pass Road) in the program area. The increase in construction trips would range from 2 to 8 percent of ADT and from 5 to 18 percent of peak hour volumes on Altamont Pass Road and Patterson Pass Road. The substantial increase in construction traffic, especially during the AM and PM peak commute hours, could potentially cause degradation of traffic operation on these local project access routes. The impact from increases construction trips on the local roadway traffic operation is considered a significant impact.

However, because the construction activities would be temporary and would not cause the long-term closures or alternation of project access roads that would otherwise substantially change the circulation of surrounding roadway system and could degrade the traffic operation to an unacceptable LOS, implementation of Mitigation Measure TRA-1 would reduce the impact of increased traffic on local access roads and the impact of short-term temporary closures of travel lanes at project site access points during delivery of oversized loads to a less-than-significant level.

^b Assumes 50 percent of the construction traffic originated from east of the program area, which is 25 percent of total construction traffic, would access the project area via I-580, and 50 percent of the construction traffic would access the project area via I-205.

^c Assumes 50 percent of the construction traffic originated from west of the program area, which is 25 percent of total construction traffic, would be from areas west of Livermore and use I-680 to access the program area. 50 percent of the construction traffic would be from south and 50 percent of the construction traffic would be from north (12.5 percent of total construction traffic).

Table 3.15-5. Estimated Construction Trips on Local Access Roadways—Typical Repowering Project and Golden Hills Project

Roadway Name	Counter Location	Existing ADT (vpd)	Average Daily Construction Trips ^a /Percent of Total ADT	Average Peak Hour Construction Trips ^a / Percent of Peak Hour Traffic ^b
Patterson Pass Road	East of Greenville Road	3,100	212/7%	49/15%
	East of South Flynn Road	2,700	212/8%	49/18%
	East of Midway Road	3,700	212/6%	49/13%
Altamont Pass Road	West of Greenville Road	10,250	212/2%	49/5%
	West of Grant Line Road	5,850	212/4%	49/8%

Assumes construction traffic would access the construction sites either via Patterson Pass Road or via Altamont Pass Road, depending on the project locations; and 50 percent of total construction traffic (424 daily trips and 98 peak hour trips) would access the project area via either roadways from the west and 50 percent of the construction traffic would be from the east.

Mitigation Measure TRA-1: Develop and implement a construction traffic control plan

Prior to starting construction-related activities, the Applicant shall prepare and implement a Traffic Control Plan (TCP) that will reduce or eliminate impacts associated with the proposed program. The TCP shall adhere to Alameda County and Caltrans requirements, and must be submitted for review and approval of the County Public Works Department prior to implementation. The TCP shall include the following elements. The County and Caltrans may require additional elements to be identified during their review and approval of the TCP.

- Schedule construction hours to minimize concentrations of construction workers commuting to/from the project site during typical peak commute hours (7 a.m. to 9 a.m. and 4 p.m. to 6 p.m.).
- Limit truck access to the project site during typical peak commute hours (7 a.m. to 9 a.m. and 4 p.m. to 6 p.m.).
- Require that written notification be provided to contractors regarding appropriate haul
 routes to and from the program area, as well as the weight and speed limits on local county
 roads used to access the program area.
- Provide access for emergency vehicles to and through the program area at all times.
- When lane/road closures occur during delivery of oversized loads, provide advance notice
 to local fire, police, and emergency service providers to ensure that alternative evacuation
 and emergency routes are designated to maintain service response times.
- Provide adequate onsite parking for construction trucks and worker vehicles.
- Require suitable public safety measures in the program area and at the entrance roads, including fences, barriers, lights, flagging, guards, and signs, to give adequate warning to the public of the construction and of any dangerous conditions that could be encountered as a result thereof.

b Peak hour traffic on the roadway segments typically is assumed about 10% of ADT.

- Complete road repairs on local public roads as needed during construction to prevent excessive deterioration. This work may include construction of temporary roadway shoulders to support any necessary detour lanes.
- Repair or restore the road right-of-way to its original condition or better upon completion of the work.
- Coordinate program-related construction activities, including schedule, truck traffic, haul routes, and the delivery of oversized or overweight materials, with Alameda County, Caltrans, and affected cities to identify and minimize overlap with other area construction projects.

Impact TRA-1a-2: Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit or conflict with an applicable congestion management program, including, but not limited to, level-of-service standards and travel demand measures or other standards established by the county congestion management agency for designated roads or highways—program Alternative 2: 450 MW (less than significant with mitigation)

As mentioned in Chapter 2, Projection Description, with the exception of the nameplate capacity and the resultant total number of turbines (i.e., approximately 259 turbines under Alternative 1 and 281 under Alternative 2), the two alternatives are identical. For the purpose of identifying traffic impacts associated with anticipated projects that could occur under Alternative 2, a typical 80 MW repowering project, as analyzed under Impact TRA-1a-1 for Alternative, is also assumed for the analysis. Therefore, operation and construction traffic impact of the Alternative 2 would be similar to the impact discussed for the Alternative 1 under Impact TRA-1a-1.

The traffic impact associated with operation and maintenance of the Alternative 2 would be less than significant. However, the construction traffic impact would be significant on the local county roads that provide direct access to the project area. Implementation of Mitigation Measure TRA-1 would reduce this impact to a less-than-significant level.

Mitigation Measure TRA-1: Develop and implement a construction traffic control plan

Impact TRA-1b: Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit or conflict with an applicable congestion management program, including, but not limited to, level-of-service standards and travel demand measures or other standards established by the county congestion management agency for designated roads or highways—Golden Hills Project (less than significant with mitigation)

The Golden Hills Project is an 88.4 MW repowering project. Therefore, operation and construction traffic impacts of the project would be similar to (or up to 10% greater than) the impact discussed for the Alternative 1 under Impact TRA-1a-1.

The traffic impact associated with operation and maintenance of the project would be less than significant. However, the construction traffic impact would be significant on the local county roads that provide direct access to the project area. Implementation of Mitigation Measure TRA-1 would reduce this impact to a less-than-significant level.

Mitigation Measure TRA-1: Develop and implement a construction traffic control plan

Impact TRA-1c: Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit or conflict with an applicable congestion management program, including, but not limited to, level-of-service standards and travel demand measures or other standards established by the county congestion management agency for designated roads or highways—Patterson Pass Project (less than significant with mitigation)

As discussed under Impact TRA-1a-1, maintenance needs of the project would be limited and not substantially greater than currently required; post-construction traffic generated by the maintenance activities would be well within the capacity of the local roadway system and would not differ materially from the current maintenance traffic level. Therefore, the traffic impact associated with operation and maintenance of the project would be less than significant.

Construction of the project would temporarily increase vehicle traffic on regional and local access routes in the project vicinity and involve the transport of oversize and overweight wind turbine components. As discussed above and summarized in Table 3.15-3, the project is anticipated to generate an average of 230 vehicle trips per day (150 truck trips and 80 worker trips) and 59 vehicle trips per hour (19 truck trips and 40 worker trips) during the peak commute hours.

Table 3.15-6 summarizes an estimate of the construction-related trips on regional access highways in the program vicinity. The increase in construction trips is a small fraction (less than 0.3 percent) of ADT on I-580 in the program area and the regional access highways in the program vicinity; accordingly, the construction traffic is not expected to degrade traffic operation on these regional access roadways.

Table 3.15-6. Estimated Construction Trips on Regional Access Roadways-Patterson Pass Project

Roadway Name	Description	2012 AADT	2012 Truck AADT/Percent of Total AADT	Average Daily Construction Trips/Percent of Total AADT	Average Daily Construction Trick Trips/Percent of Total AADT
I-580, in program area	I-205—Greenville Road, Livermore	143,000	14,870/10.4%	115ª/< 0.1%	75ª/< 0.1%
I-580, west of Program area	Greenville Road, Livermore—I-680	142,000- 214,000	7,550-20,130/ 4.6%-12.2%	115ª/< 0.1%	75ª/< 0.1%
I-580, east of Program area	I-5—I-205	21,000- 31,000	3,380-5,330/ 12.5%-17.9%	58 ^b /0.3%	38b/0.1%-0.2%
I-205, Tracy	I-580—Junction I-5	82,000- 114,000	10,560-13,680/ 11.3%-12.0%	58b/< 0.1%	38b/< 0.1%
I-680, Dublin	Bernal Avenue, Pleasanton— Alcosta Boulevard, San Ramon	132,000- 167,000	8,750-12,690/ 5.3%-9.2%	29°/< 0.1%	19°/< 0.1%

^a Assumes 50 percent of total daily vehicle trips (230) and total truck trips (150) would originate from west of the program area, from the Livermore area and areas to the west, and 50 percent of the construction traffic would originate from east of the program area, from the Tracy area and areas to the east.

Construction traffic could cause a substantial traffic increase on the local county roads that provide direct access to the project construction sites—e.g., Patterson Pass Road and Jess Ranch Road—as these roads generally have low traffic volumes. Table 3.15-7 summarizes an estimate of the construction-related trips on Patterson Pass Road, which provides direct access to construction sites in the project area. The increase in construction trips would range from 3 to 4 percent of ADT and from 8 to 11 percent of peak hour volumes on Patterson Pass Road. The substantial increase in construction traffic, especially during the AM and PM peak commute hours, could potentially cause degradation of traffic operation on these local project access routes. The impact from increases construction trips on the local roadway traffic operation is considered a significant impact.

However, because the construction activities would be temporary and would not cause the long-term closures or alternation of project access roads that would otherwise substantially change the circulation of surrounding roadway system and could degrade the traffic operation to an unacceptable LOS, implementation of Mitigation Measure TRA-1 would reduce the impact of increased traffic on local access roads and the impact of short-term temporary closures of travel lanes at project site access points during delivery of oversized loads to a less-than-significant level.

^b Assumes 50 percent of the construction traffic originated from east of the program area, which is 25 percent of total construction traffic, would access the project area via I-580, and 50 percent of the construction traffic would access the project area via I-205.

^c Assumes 50 percent of the construction traffic originated from west of the program area, which is 25 percent of total construction traffic, would be from areas west of Livermore and use I-680 to access the program area. 50 percent of the construction traffic would be from south and 50 percent of the construction traffic would be from north (12.5 percent of total construction traffic).

Table 3.15-7. Estimated Construction Trips on Local Access Roadways—Patterson Pass Project

Roadway Name	Counter Location	Existing ADT (vpd)	Average Daily Construction Trips ^a /Percent of Total ADT	Average Peak Hour Construction Trips ^a /Percent of Peak Hour Traffic ^b
Patterson Pass Road	East of Greenville Road	3,100	115/4%	30/10%
	East of South Flynn Road	2,700	115/4%	30/11%
	East of Midway Road	3,700	115/3%	30/8%

Assumes construction traffic would access the construction sites either via Patterson Pass Road or via Altamont Pass Road, depending on the project locations; and 50 percent of total construction traffic (230 daily trips and 59 peak hour trips) would access the project area via either roadways from the west and 50 percent of the construction traffic would be from the east.

Mitigation Measure TRA-1: Develop and implement a construction traffic control plan

Impact TRA-2a-1: Conflict with an applicable congestion management program, including, but not limited to, level-of-service standards and travel demand measures or other standards established by the county congestion management agency for designated roads or highways—program Alternative 1: 417 MW (less than significant)

As discussed under TRA-1a-1, maintenance needs of the project would be limited and not substantially greater than currently required; post-construction traffic generated by the maintenance activities would be well within the capacity of the CMP roadway system and would not differ materially from the current maintenance traffic level. Therefore, the traffic impact associated with operation and maintenance of the project would be less than significant.

The increase in construction traffic, as shown in Table 3.15-4, is a small fraction (less than 0.5 percent) of ADT on I-580 in the program area and the regional CMP roadways (I-205 and I-680) in the program vicinity. Although some of the CMP roadway segments operated at LOS F (Alameda County Transportation Commission 2013b:12-16). However, the small increase in construction traffic is not expected to degrade the traffic operation of the CMP roadway segments that already exceed the LOS standard E or cause a CMP roadway segment to exceed the LOS standard. Therefore, the construction traffic impact on CMP roadways would be less than significant.

Impact TRA-2a-2: Conflict with an applicable congestion management program, including, but not limited to, level-of-service standards and travel demand measures or other standards established by the county congestion management agency for designated roads or highways—program Alternative 2: 450 MW (less than significant)

Operation and construction traffic impacts on the CMP roadway system in the program vicinity would be similar to the impact discussed for the Alternative 1 under Impact TRA-2a-1. The traffic impact on CMP roadways would be less than significant.

^b Peak hour traffic on the roadway segments typically is assumed about 10% of ADT.

Impact TRA-2b: Conflict with an applicable congestion management program, including, but not limited to, level-of-service standards and travel demand measures or other standards established by the county congestion management agency for designated roads or highways—Golden Hills Project (less than significant)

Operation and construction traffic impacts on the CMP roadway system in the program vicinity would be similar to the impact discussed for the Alternative 1 under Impact TRA-2a-1. The traffic impact on CMP roadways would be less than significant.

Impact TRA-2c: Conflict with an applicable congestion management program, including, but not limited to, level-of-service standards and travel demand measures or other standards established by the county congestion management agency for designated roads or highways—Patterson Pass Project (less than significant)

Operation and construction traffic impacts on the CMP roadway system in the program vicinity would be similar to the impact discussed for the Alternative 1 under Impact TRA-1a-1. The increase in construction traffic, as shown in Table 3.15-6, is a small fraction (less than 0.3 percent) of ADT on I-580 in the program area and the regional CMP roadways (I-205 and I-680) in the program vicinity. Although some of the CMP roadway segments operated at LOS F (Alameda County Transportation Commission 2013b:12-16). However, the small increase in construction traffic is not expected to degrade the traffic operation of the CMP roadway segments that already exceed the LOS standard E or cause a CMP roadway segment to exceed the LOS standard. Therefore, the operation and construction traffic impact on CMP roadways would be less than significant.

Impact TRA-3a-1: Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks—program Alternative 1: 417 MW (less than significant)

Implementing program Alternative 1 would not affect air traffic patterns of the public and private airports in the vicinity of the program area. Additionally, this alternative would not result in substantial safety risks associated with airport operations (see airport impact discussion and FAA lighting requirements discussion in Section 3.8, *Hazards and Hazardous Materials*, under Impact HAZ-5 and Impact HAZ-6). The impact would be less than significant.

Impact TRA-3a-2: Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks—program Alternative 2: 450 MW (less than significant)

Implementing program Alternative 2 would not affect air traffic patterns of the public and private airports in the vicinity of the program area. Additionally, this alternative would not result in substantial safety risks associated with airport operations (see airport impact discussion and FAA lighting requirements discussion in Section 3.8, *Hazards and Hazardous Materials*, under Impact HAZ-5 and Impact HAZ-6). The impact would be less than significant.

Impact TRA-3b: Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks —Golden Hills Project (less than significant)

The proposed project would not affect air traffic patterns of the public and private airports in the vicinity of the project area. The proposed project also would not result in substantial safety risks

associated with airport operations (see airport impact discussion and Federal Aviation Administration lighting requirements discussion in Section 3.8, *Hazards and Hazardous Materials*, under Impact HAZ-5 and Impact HAZ-6). The impact would be less than significant.

Impact TRA-3c: Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks —Patterson Pass Project (less than significant)

The proposed project would not affect air traffic patterns of the public and private airports in the vicinity of the proposed project. The proposed project also would not result in substantial safety risks associated with airport operations (see airport impact discussion and Federal Aviation Administration lighting requirements discussion in Section 3.8, *Hazards and Hazardous Materials*, under Impact HAZ-5 and Impact HAZ-6). The impact would be less than significant.

Impact TRA-4a-1: Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) due to construction-generated traffic—program Alternative 1: 417 MW (less than significant with mitigation)

The presence of large, slow-moving construction-related vehicles and equipment among the general-purpose traffic on roadways that provide access to the program area could cause other drivers to act impatiently and create traffic safety hazards. In addition, the slow-moving trucks entering or exiting the program area from public roads could pose a traffic hazard to other vehicles and increase the potential for turning movement collisions at the program area entrance intersection. The creation of potential traffic safety hazards as a result of construction trucks would be a significant impact.

Heavy truck traffic delivering equipment and materials to the program area could result in road wear and damage that result in a driving safety hazard. The degree to which this latter impact would occur depends on the existing roadway design (pavement type and thickness) and existing condition of the road. Freeways such as I-580 are designed to accommodate a mix of vehicle types, including heavy trucks, and the construction vehicle impacts are expected to be negligible on those roads. However, county roads are not designed and constructed to the same standards as the interstate highways and could be damaged by construction traffic. This impact on county roads would be significant. Implementation of Mitigation Measure TRA-1 would reduce this impact to a less-than-significant level.

Construction associated with program Alternative 1 would require the delivery of equipment and materials, such as wind turbines, that could cause the construction trucks to exceed roadway load or size limits. To transport this equipment, the project applicant must obtain special permits from Caltrans District 4 and other relevant jurisdictions including Alameda County to move oversized or overweight materials. In addition, the applicant must ensure proper routes are followed; proper time is scheduled for the delivery; and proper escorts, including advanced warning and trailing vehicles as well as law enforcement control are available, if necessary. Therefore, compliance with required special permits, also incorporated into Mitigation Measure TRA-1, would ensure that safety hazard impacts as result of oversized or overweight trucks would be less than significant.

Mitigation Measure TRA-1: Develop and implement a construction traffic control plan

Impact TRA-4a-2: Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) due to construction-generated traffic—program Alternative 2: 450 MW (less than significant with mitigation)

The construction traffic impact on traffic safety hazards under the Alternative 2 would be similar to the impact discussed under Impact TRA-4a-1. The safety hazard impact on county roads would be significant. Implementation of Mitigation Measure TRA-1 would reduce this impact to a less-than-significant level.

Mitigation Measure TRA-1: Develop and implement a construction traffic control plan

Impact TRA-4b: Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment due to construction-generated traffic—Golden Hills Project (less than significant with mitigation)

Proposed project ingress/egress to the project area would be via Altamont Pass Road, Patterson Pass Road, Flynn Road, and Dyer Road. As described in Section 2.6.1, minor intersection improvements would be implemented along these roads to allow for safe passage of the oversized vehicles and facilitate ingress/egress from local access roads. Following road construction, all roads would be inspected to determine if and where any additional grading or additional gravel would be necessary to meet Alameda County road standards.

Regardless, the presence of large, slow-moving construction-related vehicles and equipment among the general-purpose traffic on roadways that provide access to the project area could cause other drivers to act impatiently and create traffic safety hazards. In addition, the slow-moving trucks entering or exiting the project area from public roads could pose a traffic hazard to other vehicles and increase the potential for turning movement collisions at the project entrance intersection. The creation of potential traffic safety hazards as a result of construction trucks would be a significant impact. Implementation of Mitigation Measure TRA-1 would reduce this impact to a less-than-significant level.

Mitigation Measure TRA-1: Develop and implement a construction traffic control plan

Impact TRA-4c: Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment due to construction-generated traffic—Patterson Pass Project (less than significant with mitigation)

Proposed project ingress/egress to the project area would be via Patterson Pass Road and Jess Ranch Road. As discussed in Section 2.6.2, minor intersection improvements would be implemented along these roads to allow for safe passage of the oversized vehicles and facilitate ingress/egress from local access roads. Following road construction, all roads would be inspected to determine if and where any additional grading or additional gravel would be necessary to meet Alameda County road standards.

Regardless, the presence of large, slow-moving construction-related vehicles and equipment among the general-purpose traffic on roadways that provide access to the project area could cause other drivers to act impatiently and create traffic safety hazards. In addition, the slow-moving trucks entering or exiting the project area from public roads could pose a traffic hazard to other vehicles and increase the potential for turning movement collisions at the project entrance intersection. The

creation of potential traffic safety hazards as a result of construction trucks would be a significant impact. Implementation of Mitigation Measure TRA-1 would reduce this impact to a less-thansignificant level.

Mitigation Measure TRA-1: Develop and implement a construction traffic control plan

Impact TRA-5a-1: Result in inadequate emergency access due to construction-generated traffic—program Alternative 1: 417 MW (less than significant with mitigation)

Slow-moving construction trucks could delay or obstruct the movement of emergency vehicles on program area haul routes. In addition, lane/road closures occurring during delivery of oversized loads could impair roadway capacity and increase the response time for emergency vehicles traveling through the closure area. Therefore, construction would have the potential to significantly affect emergency vehicle access. The TCP required under the Mitigation Measure TRA-1 would reduce this impact to a less-than-significant level.

Mitigation Measure TRA-1: Develop and implement a construction traffic control plan

Impact TRA-5a-2: Result in inadequate emergency access due to construction-generated traffic—program Alternative 2: 450 MW (less than significant with mitigation)

Construction traffic impact of the Alternative 2 would be similar to the impact discussed for the Alternative 1 under Impact TRA-5a-1. Therefore, construction would have the potential to significantly affect emergency vehicle access. The TCP required under Mitigation Measure TRA-1 would reduce this impact to a less-than-significant level.

Mitigation Measure TRA-1: Develop and implement a construction traffic control plan

Impact TRA-5b: Result in inadequate emergency access due to construction-generated traffic—Golden Hills Project (less than significant with mitigation)

Construction traffic impact of the proposed project would be similar to the impact discussed for the program under Impact TRA-5a-1. Therefore, construction would have the potential to significantly affect emergency vehicle access. The TCP required under Mitigation Measure TRA-1 would reduce this impact to a less-than-significant level.

Mitigation Measure TRA-1: Develop and implement a construction traffic control plan

Impact TRA-5c: Result in inadequate emergency access due to construction-generated traffic—Patterson Pass Project (less than significant with mitigation)

Construction traffic impact of the proposed project would be similar to the impact discussed for the program under Impact TRA-5a-1. Therefore, construction would have the potential to significantly affect emergency vehicle access. The TCP required under Mitigation Measure TRA-1 would reduce this impact to a less-than-significant level.

Mitigation Measure TRA-1: Develop and implement a construction traffic control plan

Impact TRA-6a-1: Conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities—program Alternative 1: 417 MW (less than significant with mitigation)

No public transit services or pedestrian facilities are available on the project access routes in the program vicinity. Therefore, the maintenance and construction activities associated with windfarms in the program area would not conflict with polices, plans, or programs regarding the alternative transportation or degrade the performance of transit services and pedestrian facilities.

Most of the maintenance and construction activities associated with windfarms are contained within the specific project work sites and are not expected to result in the long-term closures of travel lanes or roadway segments, permanently alter the public access roadways, and create new public roadways that could substantially change the travel patterns of vehicles and bicycles on the surrounding roadway facilities and conflict with the policies and plans regarding bicycle facilities.

However, during the construction, slow-moving oversized trucks could potentially disrupt the movement of bicycles traveling on the shoulders along Altamont Pass Road, Patterson Pass Road, and Flynn Road in the program area and increase the safety concerns for any bicyclists who use the routes. These roadways are not the County classified bikeways, but are used as recreational and inter-regional access routes. In addition, lane/road closures occurring during delivery of oversized loads near the work site access points could temporarily disrupt the bicycle access on the roads. Therefore, construction would have the potential to significantly affect bicycle access. The traffic control plan required under the Mitigation Measure TRA-1 would reduce this impact to a less-than-significant level.

Mitigation Measure TRA-1: Develop and implement a construction traffic control plan

Impact TRA-6a-2: Conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities—program Alternative 2: 450 MW (less than significant with mitigation)

The construction traffic impact on alternative transportation facilities (transit service, pedestrian facilities, and bicycle facilities) under the Alternative 2 would be similar to the impact discussed under Impact TRA-6a-1. The construction traffic impact on bicycle facilities would be significant. Implementation of Mitigation Measure TRA-1 would reduce this impact to a less-than-significant level.

Mitigation Measure TRA-1: Develop and implement a construction traffic control plan

Impact TRA-6b: Conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities—Golden Hills Project (less than significant with mitigation)

The construction traffic impact on alternative transportation facilities (transit service, pedestrian facilities, and bicycle facilities) under the project would be similar to the impact discussed under Impact TRA-6a-1. The construction traffic impact on bicycle facilities would be significant. Implementation of Mitigation Measure TRA-1 would reduce this impact to a less-than-significant level.

Mitigation Measure TRA-1: Develop and implement a construction traffic control plan

Impact TRA-6c: Conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities—Patterson Pass Project (less than significant with mitigation)

The construction traffic impact on alternative transportation facilities (transit service, pedestrian facilities, and bicycle facilities) under the project would be similar to the impact discussed under Impact TRA-6a-1. The construction traffic impact on bicycle facilities would be significant. Implementation of Mitigation Measure TRA-1 would reduce this impact to a less-than-significant level.

Mitigation Measure TRA-1: Develop and implement a construction traffic control plan

3.15.3 References Cited

- Alameda County. 2000. *East County Area Plan*. Adopted May 1994. Modified by passage of Measure D, effective December 22, 2000. Oakland, CA.
- ———. 2012. Alameda County Bicycle and Pedestrian Master Plan for Unincorporated Areas. April. Available: http://www.acgov.org/pwa/documents/Bike-Ped-Plan-for-Unincorporated-Final.pdf. Accessed: February 7, 2014.
- ——. 2013. *Patterson Pass Road and Tesla Road Safety Study*. Public Meeting Presentation on March 27. Alameda County Public Works Agency. Available: http://www.acgov.org/pwa/updates/pattersonpassstudy.htm. Accessed: June 27, 2013.
- Alameda County Transportation Commission. 2012a. Alameda Countywide Transportation Plan. Available:
 - http://www.alamedactc.org/files/managed/Document/8043/ALAMEDA_CWTP_FINAL.pdf. Accessed: August 28, 2013.
- ——. 2012b. Alameda Countywide Bicycle Plan with Vision Network Maps, East Planning Area. Adopted October 2012. Available:
 - http://www.alamedactc.org/files/managed/Document/10086/ACTC_Bike_East_011013.pdf. Accessed: August 19, 2013.
- ——. 2013a. Alameda County Congestion Management Program. October. Available: http://www.alamedactc.org/app_pages/view/5224. Accessed: February 7, 2014.
- ——. 2013b. 2012 Level of Service Monitoring Report. January. Available: http://www.alamedactc.org/app_pages/view/8091. Accessed: February 7, 2014.

Amgen Tour of California. 2013. *Stage 7 – Livermore to Mt Diablo*. Available: http://www.amgentourofcalifornia.com/Route/stages/stage7.html>. Accessed: October 17, 2013.

- California Department of Transportation. 2013. 2012 Traffic Volumes for All Vehicles and 2012 Truck Traffic on California State Highways. Traffic Data Branch. Available: http://trafficcounts.dot.ca.gov/. Accessed: February 7, 2014.
- Contra Costa County. 2010. Vasco Winds Repowering Project Draft Environmental Impact Report.

 December. SCH No. 2010032094. County File No. LP08-2049. Department of Conservation and Development.

East Bay Regional Parks District. 2013. 2013 Master Plan Map. July 16. Available: http://www.ebparks.org/Assets/_Nav_Categories/Park_Planning/Master+Plan/Maps/Master+Plan+Map+-+August+2013.pdf. Accessed: February 7, 2014.