

CONSOLIDATED FINAL RESTORATION PROJECTS STATEWIDE ORDER
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CHAPTER 3 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES
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3.17 Transportation

3.17.1 Introduction

This section describes the characteristics of transportation in California and the potential impacts of the types of projects that would be permitted under the Order. (Section 2.6, *Categories of Restoration Projects in the Order*.) In addition, this section evaluates potential disruptions to transportation, such as through a plan, ordinance, or policy; long-term changes to the operability and function of transportation facilities; increased hazards from geometric design or incompatible uses; or inadequate emergency access caused by project implementation.

The environmental setting and evaluation of impacts on transportation resources is based on a review of existing published documents, including city and county general plans; other information regarding example projects similar to those permitted under the Order that may be implemented by other agencies; and other information sources listed in Chapter 8, *References*.

No comments specifically addressing transportation were received in response to the notice of preparation (NOP). See Appendix B for NOP comment letters.

3.17.2 Environmental Setting

Roadways

California's roadways are classified functionally throughout the state as either urban or rural and have the following hierarchy:

- ◆ *Interstates*: Arterial roads that provide the highest level of mobility and speeds over the longest uninterrupted range, limited access, typically posted speeds of 55 to 75 miles per hour.
- ◆ *Other Freeways and Expressways*: High-mobility roads with limited on- and off-access points (e.g., ramp locations or at-grade intersections) and whose directional travel lanes are generally separated by a physical barrier.
- ◆ *Other Principal Arterials*: High-mobility, limited-access roads that typically have four lanes or more and posted speeds of 50 to 70 miles per hour. This roadway type is classified as either urban or rural (FHWA 2017):
 - Urban classification:
 - Serves major activity centers; has the highest traffic volume corridors and longest trip demands.
 - On minimum mileage, carries a high proportion of total urban travel.
 - Provides interconnection and continuity for major rural corridors to accommodate transportation through, to, and from urban areas.
 - Serves demand for travel between central business districts and outlying residential areas.

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- Rural classification:
 - Serves corridor movement that expresses characteristics representative of substantial statewide or interstate travel.
 - Connects all or a majority of urbanized areas and urban clusters of a 25,000 or more populations.
 - Provides an integrated network of continuous routes.
- ◆ *Minor Arterials*: Moderate-mobility, limited-access roads that typically have two or three lanes and include turn lanes to benefit through traffic.
- ◆ *Collectors*: Moderate-mobility, moderate-access roads that connect local roads to arterials with few businesses, and that typically have posted speed limits between 35 and 55 miles per hour.
- ◆ *Local Roads and Streets*: High-access, limited-mobility roads that emphasize access to abutting land and typically have posted speed limits between 20 and 45 miles per hour.

These classifications fall into the three most basic types of roadways in California: interstate highways, state routes, and local roadways. Interstate highways were designed to be high-speed interregional connectors and include sections of the National Highway System. Local roadways provide the greatest amount of access to adjacent land through driveways and other roadways, and therefore tend to be smaller. Arterials emphasize a high level of traffic flow for through movement, and as a result, have a higher capacity and speed with little accessibility to adjacent land. Collector roads provide a combination of both functions.

Interstate highways and state routes are typically labeled as intercity highways or principal arterials. In California, interstate highways contain a larger percentage of vehicular traffic than local arterials and roadways, as shown in Table 3.17-1 (Caltrans 2017, 2019). State routes connect centers of commerce, industry, agriculture, and mineral wealth for communities and regions of the state (California Streets and Highways Code, Division 1, Chapter 2).

Federal highways (i.e., interstate highway system and freeways) and state highways (i.e., interstate highway system, state highways, and freeways) are maintained by the California Department of Transportation (Caltrans). Federal and state highways are generally classified according to the Federal Highway Administration's Functional Classification Guidelines based on the designated level of mobility and land access. Designated truck routes are also located throughout the state and are maintained and located primarily on major federal, state, and county highways and major local arterials. These routes provide alternative routes for large trucks from mainline routes that are ill-suited for large-truck travel due because of obstacles (low-clearance bridges, sharp turns, or steep grades) or with conditions that could create unsafe conditions for smaller vehicles.

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Table 3.17-1

2018 Maintained Miles, Lane Miles, and Annual Vehicle Miles of Travel by Functional Classification in California

Functional Classification	Maintained Miles	Lane Miles	Annual Vehicle Miles of Travel (in Millions)
Interstate	2,455.94	15,299.25	92,010.08
Principal Arterial (other freeways and expressways)	1,919.03	10,996.64	67,979.73
Principal Arterial (other)	9,959.67	35,116.22	64,750.34
Minor Arterial	17,099.99	44,497.90	56,936.26
Major Collector	24,945.03	51,615.58	34,336.53
Minor Collector	7,854.28	15,836.18	1,692.16
Local	111,655.15	225,798.80	29,489.85
Statewide Total	175,589.10	399,157.56	347,194.95

SOURCE: Caltrans 2019

Roadways in the study area include approximately 71,650 miles of maintained county roads, which in terms of mileage, account for the largest percentage of all roadways (Caltrans 2019). The most heavily populated areas in California are generally along interstate or state highway corridors. Future restoration projects permitted under the Order are anticipated to occur adjacent to waterbodies; however, some of the projects (e.g., establishment, restoration, and enhancement of stream and riparian habitat; floodplain restoration) could occur in rural areas, which are located throughout the study area and include a range of roadways such as two-lane rural arterials, local roads, and levee roads.

Traffic Control

A variety of traffic control devices, such as signs, signals, and markings, are used to regulate, warn, and guide traffic and are placed on, over, or adjacent to a street, highway, pedestrian facility, bikeway, or private road open to public traffic (Caltrans 2014:43). Traffic controls might include but are not limited to speed limits, speed bumps, varying numbers of lanes, lane striping, and metering at freeway on-ramps. Intersection traffic may be controlled through stop signs, yield signs, traffic circles, traffic signals, and other measures.

Railroads

The State of California regulates railroads located throughout the study area:

- ◆ *Class I railroads* are freight railroads and operate in multiple states over thousands of miles of track. California is served by two Class I railroads: Burlington Northern Santa Fe Railroad (BNSF) and Union Pacific Railroad (UP).

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Generally, these railroads have revenue of at least \$464 million, and account for approximately 68 percent of U.S. freight rail mileage.

- ◆ *Class III railroads*, often referred to as “short line” railroads, generate average revenue of \$336.6 million or less. Some examples of Class III railroads in the state include the California Northern Railroad, Los Angeles Junction Railway, Quincy Railroad, and Sacramento Valley Railroad.
- ◆ *Commuter rails*, or suburban rail, are transport services that operate primarily within a metropolitan area for passenger travel, connecting commuters to a central city from adjacent suburb or town. Some examples include Caltrain, the North County Transit District Coaster, and Amtrak Capitol Corridor.

The California High-Speed Rail Authority is responsible for the planning, design, building, and operation of the nation’s first high speed rail system, proposed to cover a total of 800 miles with up to 24 stations. This project will occur in two phases: Phase 1 will connect San Francisco to the Los Angeles basin via the Central Valley and Phase 2 will extend from Sacramento to San Diego. Initial construction is in progress from Merced to Bakersfield. The first operating sections of the project are projected to open in 2028 (California High-Speed Rail Authority, 2020).

All railroads in California are regulated by the California Public Utilities Commission. The commission’s Railroad Operations and Safety Branch enforces federal and state safety rules, regulations, and inspection efforts and carries out proactive assessments of potential risks.

Bridges

As of December 2017, California had 25,657 bridges, the fourth largest state inventory of bridges in the United States behind Texas, Ohio, and Illinois (ASCE 2018). More than 17,000 of California’s 25,657 bridges cross over waterways and generally range from one to six lanes. Caltrans owns and operates about half of the state’s bridges; the remainder are owned and maintained by local jurisdictions. The following are some of the most iconic bridges in the state:

- ◆ The Golden Gate Bridge, connecting San Francisco and Marin Counties along U.S. Highway 101, is 4,200 feet long. The bridge was opened in 1937 and has a total of six lanes. More than 100,000 vehicles cross the Golden Gate Bridge every day.
- ◆ The Bixby Creek Bridge was opened in 1932. Located in Big Sur along State Route 1, this bridge is 714 feet long with one lane in each direction. Its aesthetic design makes the Bixby Creek Bridge one of the most photographed bridges in California.
- ◆ The Foresthill Bridge in Auburn was constructed in 1973. With two lanes each way, the Foresthill Bridge is the state’s tallest bridge, spanning 2,428 feet in length and 730 feet in height.

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Ports, Deep Water Channels, and Ferries

Ports and Deep Water Channels

Ports and deep water channels allow movement and docking for watercraft of all sizes and are places where vessels, boats, and ships can unload and load cargo. Generally, regular ports are recreational types where water depth is 20 feet or shallower, whereas deep channel ports are used by large, heavy loaded ships in waters 30 feet deep or deeper.

Ports and deep water channels have been a basis for economic growth in the study area. As such, they are found throughout the state to assist in the movement of goods and people. California has 11 public ports: three megaports (Los Angeles, Long Beach, and Oakland) and eight smaller niche ports (Hueneme, Humboldt Bay, Redwood City, Richmond, West Sacramento, San Diego, San Francisco, and Stockton). The state also has one private port (Benicia).

The Port of Los Angeles, one of the state's three megaports, lies along San Pedro Bay. It occupies 7,500 acres of land with a 43-mile-long waterfront and is ranked the 19th busiest port in the world in regard to container volume. In 2018, the Port of Los Angeles moved approximately 18 percent of the nation's containerized cargo.

Another of the state's megaports, the Port of Long Beach, occupies 3,520 acres of land and handles approximately 82.3 million metric tons of cargo, making it the second-busiest port in the United States.

One of the smaller niche ports, the Port of West Sacramento, is located 79 nautical miles inland from San Francisco and is reached via a 40-mile-deep ship channel maintained at a depth of 30 feet by the U.S. Army Corps of Engineers.

In addition, dozens of small craft harbors are found along the entire California coast, serving pleasure boaters, commercial fishing boats, cargo boats and barges, law enforcement patrol boats, and other craft.

Ferries

Ferries provide transportation over short distances at regular intervals across waterways where bridges are not practical or cost effective. Ferry service is a primary means of public access to the Channel Islands of Southern California. Ferries also serve commuters crossing San Francisco Bay. As such, ferries are found throughout California. On a smaller scale, two examples of ferries are the *Real McCoy II*, which is classified as an extension of State Route 84, and the *J-Mack*, classified as an extension of State Route 220. Both of these ferries are operated by Caltrans and offer public transport to and from public land in the Sacramento–San Joaquin Delta.

Airports

A number of airports are located in the study area. These facilities include both private and public regional and international airports. Restoration projects could attract wildlife (e.g., waterfowl, bats, rodents) or alter migration patterns or the local movement patterns of birds, thus presenting potential risks to aircraft by altering avian pathways and putting

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them within airport flight paths. Table 3.17-2 includes a summary of information on wildlife strikes from 2019 for California’s largest international airports.

See Section 3.10, *Hazardous and Hazardous Materials*, for more information on hazards associated with airports.

**Table 3.17-2
Wildlife Strike Summary for California’s Largest International Airports in 2019**

International Airport	≤1,500 feet strikes/ 100,000 movements	≤1,500 feet adverse effect strikes/ 100,000 movements
Los Angeles	22.17	1.01
San Francisco	14.85	0.44
San Diego	9.6	0
Norman Y. Mineta San José	31.83	0.98
Metro Oakland	34.09	3.29
Sacramento	84.68	5.94

SOURCE: Embry-Riddle Aeronautical University, 2020 and Federal Aviation Administration Wildlife Strike Database, 2020

Bicycle and Pedestrian Facilities

Bicycle and pedestrian facilities provide modes of transportation for local and regional travel, as well as recreational activities. These facilities include paved bike and walking paths, shared bike lanes, sidewalks, and natural trails, all of which are present throughout the study area.

3.17.3 Regulatory Setting

This section discusses federal, state, and regional and local plans, policies, regulations, and laws, and ordinances pertaining to transportation.

Future permitted restoration projects that would be implemented under the Order may be subject to the laws and regulations listed below, as well as other local or individual restoration projects requirements, depending on the project location.

Federal

California Department of Transportation

Caltrans is responsible for planning, designing, constructing, operating, and maintaining all state-owned roadways, and for implementing federal highway standards for interstate highways.

Rivers and Harbors Act of 1899

The Rivers and Harbors Act prohibits the construction of any bridge, dam, dike, or causeway over or in navigable waterways of the United States without congressional approval. The U.S. Coast Guard manages oversight of these structures and protects

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people, maritime commerce, and the environment against hazards in navigable waters of the United States (USFWS 2020). See Section 3.11, *Hydrology and Water Quality*, for additional information on the Rivers and Harbors Act.

U.S. Department of Transportation

The U.S. Department of Transportation administers numerous laws and regulations that regulate California roads and interstate commerce. The department is responsible for planning and coordinating federal restoration projects while setting safety regulations for all major modes of transportation.

Federal Railroad Administration

The Federal Railroad Administration regulates interstate railroads and is responsible for providing for safe, reliable, and efficient movement of people and goods throughout the United States.

Federal Aviation Administration

The Federal Aviation Administration regulates civil aviation that promotes safety. The agency develops and operates a system of air traffic control and navigation for both civil and military aircraft.

State

Caltrans manages the California Scenic Highway Program to preserve and protect scenic highway corridors from changes that would affect the aesthetic value of the land adjacent to the highways. Designation as a scenic highway is determined by views of the natural landscape, scenic quality, and the extent of visual intrusion. A city or county must nominate an eligible scenic highway for official designation and adopt a corridor protection program that includes zoning and planning policies to preserve its scenic quality.

Regional and Local

The Order would permit a variety of restoration projects that would take place throughout the state, and as such would include all counties and all cities. Each county and city has local regulations and a general plan with transportation goals and policies that help support, preserve, and adhere to existing programs, plans, ordinances, and policies addressing transportation, traffic, and circulation. Each general plan has categorized its primary road system (e.g., arterial, collector) and set level-of-service standards for them, which define a scope to measure the amount of traffic a roadway may be capable of handling. These standards are used to assess the performance of a street or highway system and the capacity of a roadway.

3.17.4 Impacts and Mitigation Measures

Methods of Analysis

Transportation impacts from the types of restoration projects permitted under the Order are evaluated in terms of how typical construction and operation of project components could impact existing traffic. However, the precise location and detailed characteristics of potential future individual restoration projects are yet to be determined. Therefore, this transportation analysis focuses on reasonably foreseeable changes from

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implementation of the types of projects and actions that might be taken in the future consistent with the level of detail appropriate for a program-level analysis. The restoration projects permitted under the Order could affect the transportation facilities analyzed in this section in several ways:

- ◆ Project construction could increase congestion on area roads and intersections for short periods of time.
- ◆ Under some circumstances, permitted restoration projects could displace existing roadways, requiring them to be relocated or redesigned to accommodate the future projects.
- ◆ Roadway capacity could be reduced.
- ◆ Waterway navigability could be reduced (e.g., stream crossings and fish passage improvements, and removal of small dams, tide gates, flood gates, and legacy structures).

Permanent impacts are considered those that would continue through the life of a project as a result of the environmental conditions caused by restoration projects permitted under the Order (e.g., new infrastructure that requires activities involving the routine removal of debris or the use of heavy equipment). Temporary impacts are considered those that would be temporary in nature (e.g., construction-related activities).

The approach to assessing transportation impacts was to identify and review existing environmental studies, data, model results, and other information for projects that are consistent with those identified in Section 2.6, *Categories of Restoration Projects in the Order*, and Section 2.7, *Typical Construction, Operation, and Maintenance Activities and Methods*.

Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines, an impact related to transportation and traffic is considered significant if the types of projects that would be permitted under the Order would do any of the following:

- ◆ Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities
- ◆ Conflict or be inconsistent with State CEQA Guidelines Section 15064.3(b)
- ◆ Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)
- ◆ Result in inadequate emergency response access

Conflict or Inconsistency with State CEQA Guidelines Section 15064.3

The new State CEQA Guidelines Section 15064.3(b) was adopted in December 2018 by the California Natural Resources Agency. Revisions to the State CEQA Guidelines criteria for determining the significance of transportation impacts are primarily focused on projects within transit priority areas, and shift the focus from driver delay to reduction of greenhouse gas emissions, creation of multimodal networks, and promotion of a mix

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of land uses. Vehicle miles traveled (VMT) is a measure of the total number of miles driven to or from a development and is sometimes expressed as an average per trip or per person.

The newly adopted guidance provides that a lead agency may elect to be governed by the provisions of this section immediately. Beginning on July 1, 2020, the provisions of this section were applied statewide. Some CEQA lead agencies are using state recommended standards (e.g., Office of Planning and Research or California Air Resource Board) and others are working on updating their general plans, local CEQA guidelines, etc. with transportation significance thresholds or transportation impact analysis procedures.

For an evaluation of how restoration projects permitted under the Order could interfere with emergency response access or with an adopted emergency response or evacuation plan, see Section 3.10, *Hazards and Hazardous Materials*.

Impacts and Mitigation Measures

Table 3.17-3 summarizes the impact conclusions presented in this section for easy reference.

**Table 3.17-3
Summary of Impact Conclusions—Transportation**

Impact Statement	Construction Activities	Constructed Facilities and Operations and Maintenance
3.17-1: Future restoration projects permitted under the Order could conflict with a plan, ordinance, or policy addressing the circulation system including transit, roadways, bicycle, and pedestrian facilities.	LTSM	LTS
3.17-2: Future restoration projects permitted under the Order could conflict with or be inconsistent with State CEQA Guidelines Section 15064.3(b).	SU	LTS
3.17-3: Implementing future restoration projects permitted under the Order could substantially increase hazards due to a geometric design feature or incompatible uses.	LTSM	LTSM

SOURCE: Data compiled by Environmental Science Associates in 2019 and 2020

NOTES: LTS = less than significant; LTSM = less than significant with mitigation;

SU = significant and unavoidable

As part of the State Water Board or Regional Board’s issuance of a NOA for a restoration project under the Order, compliance with the general protection measures and mitigation measures listed below would be required when applicable to a given

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project. Not all general protection measures and mitigation measures would apply to all restoration projects. The applicability of the general protection measures and mitigation measures would depend on the individual restoration activities, project location, and the potentially significant impacts of the individual restoration project. Implementation of the mitigation measures would be the responsibility of the project proponent(s) under the jurisdiction of the State Water Board, appropriate Regional Board, or other authorizing regulatory agency.

Impact 3.17-1: Future restoration projects permitted under the Order could conflict with a plan, ordinance, or policy addressing the circulation system including transit, roadway, bicycle, and pedestrian facilities.

Effects of Project Construction Activities

Construction activities for future restoration projects that would be permitted under the Order could result in temporary partial or full road closures. As a result, these projects could conflict with a plan, ordinance, or policy associated with the circulation system, or could affect the use of federal, state, and local highways and bridges and transit, roadways, bicycle, and pedestrian facilities:

- ◆ Road or lane closures may be necessary for the use of construction equipment, installation and removal of project components, or restoration and enhancement activities.
- ◆ Based on specific project designs, roads may need to be relocated, which could generate new and/or rerouted traffic at intersections or road segments that are not designed to fit the additional traffic.
- ◆ The import and export of construction materials may lead to a substantial increase in traffic congestion at intersections or road segments, depending on the number of trucks and haul trips needed for the project.
- ◆ Some of the roads that could be affected by increased congestion could be designated truck routes. Project construction could lead to an impact on truck routes in areas where no other alternative truck route is available.

Construction-related impacts on railroads from restoration projects permitted under the Order could be similar to the anticipated road and transit impacts because tracks and trestles may require temporary closure. Adverse effects could include rerouting of passengers and freight that could cause delays. Track closures would be temporary and could affect private freight companies and a small number of commuters.

Certain restoration projects permitted under the Order would involve establishment, restoration, and enhancement of stream and riparian habitat. These projects may involve removing or relocating infrastructure along streams and in riparian areas. The affected infrastructure would vary depending on the specific project details. General infrastructure work for this type of project could involve removing boat docks, boat haul-out locations, campgrounds and campsites, day-use sites, roads and trails, and off-highway/off-road vehicle routes that affect aquatic resources or riparian habitat. These types of restoration projects could temporarily disrupt the use or circulation of traffic

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associated with pedestrian facilities and could affect a small number of commuters and recreational users located adjacent to the restoration project.

Some construction activities, such as removal or relocation of infrastructure along streams and in riparian areas, could occur in navigable waterways and could adversely affect navigation. For example, restoration projects to remove tide gates may include installation of temporary cofferdams and dewatering pumps, and excavation of existing channels, adjacent floodplains, flood channels, and wetlands. These projects could use excavators, cranes, boats, barges, pumps, dump trucks, and similar equipment, which could temporarily obstruct vessel navigation and boat passage during times of high boat traffic. In addition, speed restrictions in construction areas could delay boat traffic. Restoration projects permitted under the Order would be required to comply with Sections 9 and 10 of the Rivers and Harbors Act, which address placing obstructions or constructing structures in certain navigable waters; dredging or disposing of dredged materials; and excavating, filling, and reconstructing channels.

Construction activities for future restoration projects permitted under the Order could take place in areas containing bridges and could affect bridge traffic. Some projects that might affect bridges include restoration and enhancement of off-channel/side channel habitat; stream crossing and fish passage improvements; removal of small dams, tide gates, flood gates, and legacy structures; establishment, restoration, and enhancement of stream and riparian habitats; and floodplain restoration. These projects could include removal or installation of or upgrades to infrastructure that could temporarily disrupt bridge traffic.

For example, a restoration project that would involve grading and breaching for tidal inundation, relocating berms, and restoring native marsh vegetation may cause a slight, temporary increase in VMT within the circulation system because construction workers would travel to and from the site. However, the traffic increase attributable to worker trips and hauling of vegetation off-site would be temporary, and would not cause delays, increases in peak traffic volume, or increases in VMT sufficient to create a conflict with any applicable plan, ordinance, or policy.

However, the exact locations and extent of restoration projects that would be permitted under the Order are yet to be determined. Therefore, it is not possible to conclude that such projects would not conflict with a plan, ordinance, or policy addressing the circulation system including transit, roadways, bicycle, pedestrian facilities, and bridge crossings. Therefore, this impact would be **potentially significant**.

Projects implementing applicable general protection measures (Appendix E) included in the Order would further reduce impacts to the circulation system. The following general protection measures may apply to transportation:

To reduce impacts on the circulation system, the Order includes the following general protection measures (Appendix E):

- ◆ GPM-6: Work Area and Speed Limits
- ◆ GPM-10: Equipment Maintenance and Materials Storage
- ◆ WQHM-1: Staging Areas and Stockpiling of Materials and Equipment

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As part of the State Water Board or Regional Board's issuance of a NOA for a restoration project under the Order, compliance with Mitigation Measure TRA-1, TRA-2, TRA-3, TRA-4, and TRA-5 would be required when applicable to a given project. Implementation of this mitigation measure would be the responsibility of the project proponent(s) under the jurisdiction of the State Water Board, appropriate Regional Board, or other authorizing regulatory agency.

Mitigation Measure TRA-1: Prepare Construction Traffic Management Plan

Before construction begins, the construction manager shall have a qualified professional prepare a construction traffic management plan. The plan shall provide the appropriate measures to reduce potential traffic obstructions or service level degradation at affected traffic facilities. The scope of the construction traffic management plan will depend on the type, size, and duration of the specific qualifying restoration project under the Order. The plan could include such measures as construction signage, flaggers for lane closures, and construction schedule and/or delivery schedule restrictions. The plan shall be submitted to the local public works department and implemented as appropriate throughout construction.

Mitigation Measure TRA-2: Prepare Waterway Traffic Control Plan

A waterway traffic control plan shall be prepared before project construction begins. The plan shall be followed throughout construction to ensure that vessels can navigate safely and efficiently during construction. The plan shall identify vessel traffic control measures to reduce congestion and navigation hazards to the extent feasible. Construction zones in waterways shall be barricaded or guarded by readily visible barriers or other effective measures to warn boaters of their presence and restricted access. Warning devices and signage shall comply with the California Uniform State Waterway Marking System and shall be operational during nighttime hours and periods of dense fog.

Mitigation Measure TRA-3: Develop Channel Closure Plan for Affected Facilities

Before construction begins in areas where temporary partial waterway closure is necessary, a temporary channel closure plan shall be developed. The plan shall identify alternative detour routes and procedures for notifying boaters of construction activities and partial closures including coordination with the U.S. Coast Guard, local boating organizations, and marinas. The channel closure plan shall be implemented as appropriate throughout construction.

Mitigation Measure TRA-4: Reduce Project Effects on Boat Passage and Transit Facilities

To the extent feasible, the following actions shall be implemented to reduce impacts of project construction on boat passage and transit facilities:

- ◆ To the extent feasible, ensure that safe boat access to public launch and docking facilities, businesses, and residencies is maintained.
- ◆ Coordinate with transit system operators, as appropriate, to establish alternative transit system routes to be rerouted during construction.

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- ◆ Provide boat passage as an integral component of operable gate facilities, and design such facilities to provide uninterrupted boat passage when the gates are in the “up” position. Floating docks with mooring bits shall be provided along the shoreline on both sides of the boat passage facilities for boaters to use while waiting.
- ◆ Before construction begins in areas where bridge closure may be necessary, develop a traffic plan that identifies traffic control measures to reduce congestion and provide alternative routes.

Mitigation Measure TRA-5: Minimize Effects on Trails and Bicycle and Pedestrian Circulation and Identify Alternatives

To minimize potential impacts of project construction on trails and bicycle and pedestrian circulation, the following actions shall be taken when feasible:

- ◆ Minimize closure of paths.
- ◆ Provide for temporary or permanent relocation of the trails and bicycle pedestrian circulation locations to the extent feasible.
- ◆ Consult with the appropriate public works department to determine the most feasible alignment for facility relocation.

Implementation of the applicable general protection measures and Mitigation Measures TRA-1 through TRA-5 into project designs and plans would reduce the impact related to a conflict with a plan, ordinance, or policy addressing the circulation system to a **less-than-significant** level.

Effects of Constructed Facilities (Natural and Artificial Infrastructure) and Operations and Maintenance of those Facilities

Operations and maintenance of facilities for future restoration projects that would be permitted under the Order are not likely to substantially increase traffic or cause circulation problems associated with transit, roadways, bicycle, and pedestrian facilities. These projects would adhere to regional and local general plans and traffic regulations; therefore, they would not create substantial traffic during peak-hour periods. Workers involved with the operations and maintenance of constructed facilities would come from an existing worker pool within the project region and would not result in a substantial increase in the number of workers or vehicle trips. Therefore, operations would not substantially increase traffic or roadway congestion.

Some restoration projects permitted under the Order could remove or relocate bicycle and pedestrian facilities, affecting demands on other pathways and recreational activities. Constructing project facilities in waterways and small channels could affect navigation and boat traffic (Impact 3.17-3); periodic maintenance activities could be required, which could temporarily obstruct vessel navigation and boats. However, these restoration projects would be required to adhere to statewide, regional, and local policies, regulations, and ordinances governing traffic and circulation systems. Therefore, this impact would be **less than significant**.

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Impact 3.17-2: Future restoration projects permitted under the Order could conflict with or be inconsistent with State CEQA Guidelines Section 15064.3(b).

Effects of Project Construction Activities

Section 15064.3(a) of the State CEQA Guidelines calls for evaluation of a project's transportation impacts in terms of VMT, which refers to the amount and distance of automobile travel attributable to a project. Section 15064.3(a) of the CEQA Guidelines also provides that, except as provided in Section 15064.3(b), Criteria for Analyzing Transportation Impacts (e.g., land use and transportation projects), a project's effects on automobile delay shall not constitute a significant environmental impact. In addition, Section 15064.3(b) allows CEQA lead agencies to tailor their criteria for determining the significance of transportation impacts, including using VMT. In addition, Section 15064.3(b) recognizes that not all transportation projects will induce vehicle travel and would not result in a significant impact to transportation.

Construction activities for future restoration projects that would be permitted under the Order could exceed the threshold of significance and conflict with State CEQA Guidelines Section 15064.3(b). Equipment, materials, and workers would have to be transported to project construction sites. Larger projects located near water may use large barges to transport construction equipment and materials via waterways. However, the level of significance of impacts for automobile travel would depend on the locations and types of restoration projects permitted under the Order.

Each project would require its own analysis in terms of VMT and would be required to adhere to State CEQA Guidelines Section 15064.3(b). However, the specific projects that would be carried out under the Order are yet to be determined. Therefore, the potential exists for a restoration project to exceed the threshold of significance set for transportation impacts by the CEQA lead agency or conflict or be inconsistent with State CEQA Guidelines Section 15064.3(b), and this impact would be **potentially significant**. The Order does not include any applicable general protection measures applicable to this impact.

As part of the State Water Board or Regional Board's issuance of a NOA for a restoration project under the Order, compliance with Mitigation Measure TRA-6 would be required when applicable to a given project. Implementation of this mitigation measure would be the responsibility of the project proponent(s) under the jurisdiction of the State Water Board, appropriate Regional Board, or other authorizing regulatory agency.

Mitigation Measure TRA-6: Reduce Emissions

To comply with State CEQA Guidelines Section 15064.3(b), the following measures shall be taken to reduce effects associated with increased VMT:

- ◆ Limit idling time for commercial vehicles, including delivery and construction activities.
- ◆ Use low- or zero-emissions vehicles, including construction vehicles.
- ◆ Institute a heavy-duty off-road vehicle plan and a construction vehicle inventory tracking system for construction projects.

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- ◆ Promote ridesharing.
- ◆ Provide the necessary facilities and infrastructure to encourage the use of low- or zero-carbon emissions vehicles (e.g., electric vehicle charging facilities and conveniently located alternative fueling stations).
- ◆ Increase the cost of driving and parking private vehicles, such as by imposing tolls and parking fees.
- ◆ Provide a shuttle service to public transit and worksites.
- ◆ Provide information on all options for individuals and businesses to reduce transportation-related emissions.

Mitigation Measure TRA-6 would be implemented to reduce the impacts of restoration projects permitted under the Order. However, because the extent and location of such actions are not yet determined at this time, it is not possible to conclude that the mitigation measure, or equally effective mitigation measure, would reduce significant impacts to a less-than-significant level in all cases. Therefore, this impact would be **significant and unavoidable**.

Effects of Constructed Facilities (Natural and Artificial Infrastructure) and Operations and Maintenance of those Facilities

Operations of facilities for restoration projects that would be permitted under the Order are not likely to require a large amount of automobile travel. The workers hired for each project would likely come from the regional worker pool and would not substantially increase automobile trips. Some projects may require operations and maintenance activities involving the removal of debris or the use of heavy equipment. However, substantially fewer trips are anticipated to occur than during construction. Therefore, this impact would be **less than significant**.

Impact 3.17-3: Implementing future restoration projects permitted under the Order could substantially increase hazards due to a geometric design feature or incompatible uses.

Effects of Project Construction Activities, Constructed Facilities (Natural or Artificial Infrastructure), and Operations and Maintenance of those Facilities

Construction of restoration projects, constructed facilities (natural or artificial infrastructure), and operations and maintenance of those facilities permitted under the Order could affect transportation infrastructure such as roads, bridges, railroads, and navigable waterways. Work to establish, restore, and enhance stream and riparian habitat has the potential to affect infrastructure elements such as boat docks, boat haul-out locations, campgrounds and campsites, day-use sites, roads and trails, and off-highway/off-road vehicle routes. Such work could require substantial temporary alterations to the horizontal and vertical alignments of these facilities. Upslope restoration and enhancement projects could decommission, upgrade, and stormproof priority roads and trails.

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In addition, employees could commute along designated access routes. These routes would generally be preexisting public roads near construction sites; however, new off-road haul routes may be constructed between borrow sites, staging areas, and construction sites. These constructed access roads would be temporary, and restored to pre-project conditions once construction was completed.

For example, for a restoration project to replace a culvert and enhance fish passage, slow-moving trucks that deliver materials and remove materials and debris could enter and exit public streets, which could create hazards to vehicles, pedestrians, and bicyclists, thus resulting in potentially significant impacts.

Construction of some projects would affect navigation in waterways and deep water channels, potentially increasing hazards associated with channel design and geometric features. Such projects could expose boaters to additional hazards, such as increased water velocities (Section 3.11, *Hydrology and Water Quality*), or an increased risk of a collision when multiple vessels are present in the construction area. However, the exact designs of the restoration projects permitted under the Order are yet to be determined.

Project operations could affect navigation in waterways and shallow water channels and cause a potential for an increased navigation hazard if debris such as tree snags and other types of floating or submerged debris accumulated (e.g., on bridges, culverts, large woody material, engineered logjams). This debris could pose a navigational hazard or damage vessels navigating in the channel.

Therefore, impacts related to geometric design or incompatible use hazards would be **potentially significant**. The Order does not include any applicable general protection measures applicable to this impact.

As part of the State Water Board or Regional Board's issuance of a NOA for a restoration project under the Order, compliance with Mitigation Measure TRA-7 and TRA-8 would be required when applicable to a given project. Implementation of this mitigation measure would be the responsibility of the project proponent(s) under the jurisdiction of the State Water Board, appropriate Regional Board, or other authorizing regulatory agency.

Mitigation Measure TRA-7: Conduct Routine Inspections

An inspection and operation plan shall be developed and implemented, where applicable. The plan shall include procedures for routine inspections and facility operation to allow safe navigation should the facility become damaged or malfunctions. This plan shall include the following specific components:

- ◆ Routine inspections and correction procedures to ensure that facility safety features are in good working order.
- ◆ Routine inspections and correction procedures for navigational hazards around facilities, including floating or submerged debris and the formation of shoals.

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Mitigation Measure TRA-8: Repair Damaged Roadways and Trails Following Construction

If damage to roads, sidewalks, trails, and/or medians occur, the construction contractor shall coordinate with the affected project proponents to ensure that any impacts are adequately repaired in accordance with applicable agency standards. Roads and/or driveways disturbed by construction activities or construction vehicles shall be properly restored to ensure long-term protection of road surfaces. Roadside drainage structures and road drainage features (e.g., rolling dips) shall be protected by regrading and reconstructing roads to drain properly. The construction contractor shall work with the applicable agencies to document preconstruction conditions of road features before the start of construction.

Restoration projects would be required to adhere to statewide, regional, and local policies, regulations, and ordinances governing traffic and circulation systems. Implementing Mitigation Measures TRA-7 and TRA-8 and the applicable general protection measures would reduce the impact related to a substantial increase in hazards due to a geometric design feature or incompatible use to a **less-than-significant** level.