

DEPARTMENT OF CALIFORNIA HIGHWAY PATROL

INITIAL STATEMENT OF REASONS

TITLE 13 CALIFORNIA CODE OF REGULATIONS, DIVISION 2, CHAPTER 6, ARTICLE 1
AMEND SECTION 1152.2

Explosives Routes – Map 12 (CHP-R-2021-06204)

PURPOSE OF REGULATIONS AND PROPOSED AMENDMENTS

The California Highway Patrol (CHP) proposes to amend regulations in Title 13 of the California Code of Regulations (CCR), Division 2, Chapter 6, Article 1, regarding the designated routes for the transportation of explosives by commercial vehicles on highways in the state.

Pursuant to Division 14, Transportation of Explosives, commencing with Section 31600 of the California Vehicle Code (CVC), the CHP shall adopt regulations specifying the routes to be used in the transportation of explosives. The CVC requires the CHP to keep information current in regulations with maps indicating the designated routes. The CHP's field commands conduct annual reviews on the explosives routes and stops to determine if changes are necessary. The CHP's Coastal Division proposed an update to the explosives routes. The proposed regulation amendments will remove 11.4 miles and extend 4.1 miles of the currently designated routes. These updates will provide carriers with an alternative route to reduce potential risks associated with the transportation of explosives, thereby enhancing public health and safety in the Pismo Beach/Grover Beach/Oceano area.

The proposed amendments have received concurrence from the CHP's Coastal Division, Pismo Beach Fire Department (Pbfd), Five Cities Fire Authority (FCFA), San Luis Obispo County Fire Department (SLOCFD), State Fire Marshal (SFM), and California Department of Transportation (Caltrans).

PURPOSE OF AMENDMENTS

The proposed amendment will update and clarify the designated transportation routes for explosives by amending Map 12, specified in Section 1152.2 CCR. The amendment is necessary to avoid transporting explosives through the populated Pismo Beach/Grover Beach/Oceano area.

Title 49 of the Code of Federal Regulations, Section 397.71, authorizes each state to select routes in order to minimize risks associated with the highway transportation of explosives and to enhance public safety by examining, reviewing, and evaluating alternate routes. This routing assessment employs the methodologies outlined in the Highway Routing of Hazardous

Materials-Guidelines for Applying Criteria (FHWA-HI-97-003) published by the Federal Highway Administration (FHWA) of the United States (US) Department of Transportation (DOT). The methodologies employed take into consideration items such as the road distance and drive time, number of schools, population and housing densities, and traffic crash rates along the highways. The data is compiled using demographic and spatial data retrieved from the 2010 census survey conducted by the United States Census Bureau (USCB), the emergency facility sites collected and digitized by the Southern California Earthquake Center (SCEC) at the University of Southern California (USC) in 2012, the traffic-volume counts compiled by Caltrans and the County of San Luis Obispo (COSLO), the crash incidents collected in the CHP's Statewide Integrated Traffic Records System (SWITRS), and the highway length and transit time derived from Google Earth and Google Maps. When data is not available for certain segments of local roads, the best estimates on traffic-volume counts and/or crash rates are applied. The evaluation of the relative risks for each alternative route is conducted using a geographic information system (GIS). The route is evaluated with a one-mile buffer zone as the evacuation distance in the event a fire should occur on the highway during an explosion accident, as referenced in the 2020 Emergency Response Guidebook (ERG) issued by the US DOT's Pipeline and Hazardous Materials Safety Administration (PHMSA).

RATIONALE AND ANALYSIS

The current explosives routes in the Pismo Beach/Grover Beach/Oceano area were designated and became effective in 1992, as shown on *Figure 1*, with US-101 and State Route (SR)-1. Since then, the population in Pismo Beach has increased about 6 percent, Grover Beach increased approximately 15 percent, and Oceano increased approximately 25 percent. Due to development, more than 80 local streets are now crossing an 11.4-mile section of SR-1 between Willow Road (Rd.) near Bromela and the junction of SR-1 and US-101 at Mattie Rd., shown as Points C and A, respectively, on *Figure 2*.

Even though Willow Rd. is a local street and does not meet all of the requirements under the California Legal Route or the federal Surface Transportation Assistance Act (STAA) of 1982, the CHP's Coastal Division considers Willow Rd. as a potential alternative route and stated:

“It connects US 101 and SR 1 and is approximately 4 miles in length. There is one lane in each direction and it's pretty rural. There is a golf course and several ranch style properties along the route, but everything is set back quite far from the roadway. There are nine intersections controlled by stop signs (stop on intersecting roads only), one intersection controlled by a 4-way traffic signal, and one stop sign on Willow Road (at SR 1).”

Therefore, a risk analysis was performed to compare the existing explosives routes using SR-1 and the alternative routes taking Willow Rd. to avoid transporting explosives through the downtown and residential areas of Pismo Beach, Grover Beach, and Oceano.

Table 1 presents the characteristics of the existing route, Route 1, which utilizes SR-1 between Points A and C, and the alternative route, Route 2, which employs US-101 and Willow Rd.

between Points A and C via B shown on *Figure 2*. Comparing these two routes with each other, Route 1 is 4 miles shorter in road distance; however, it is 3 minutes longer in drive time.

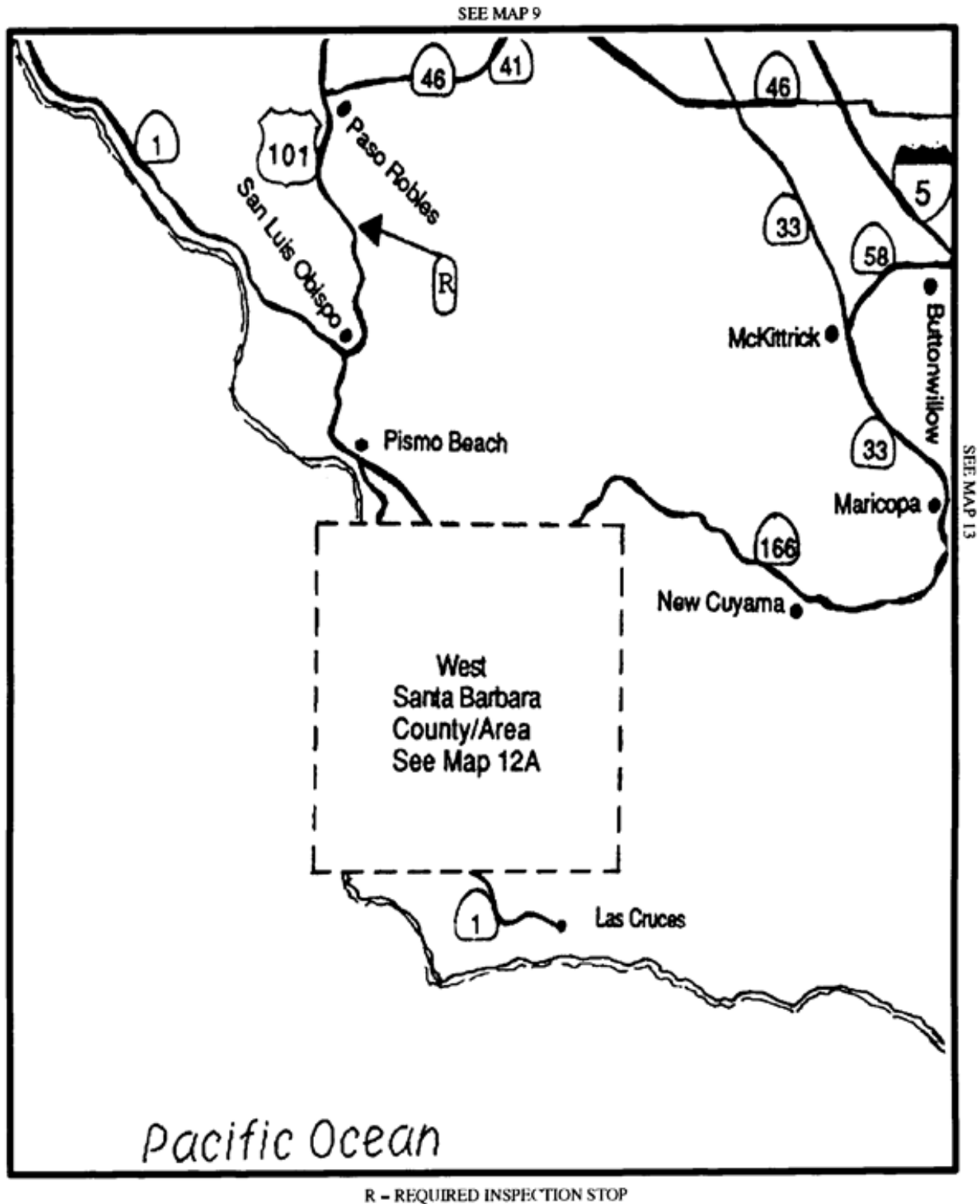


Figure 1: Map 12 Showing the Existing Routes Designated in the Pismo Beach/Grover Beach/Oceano Area

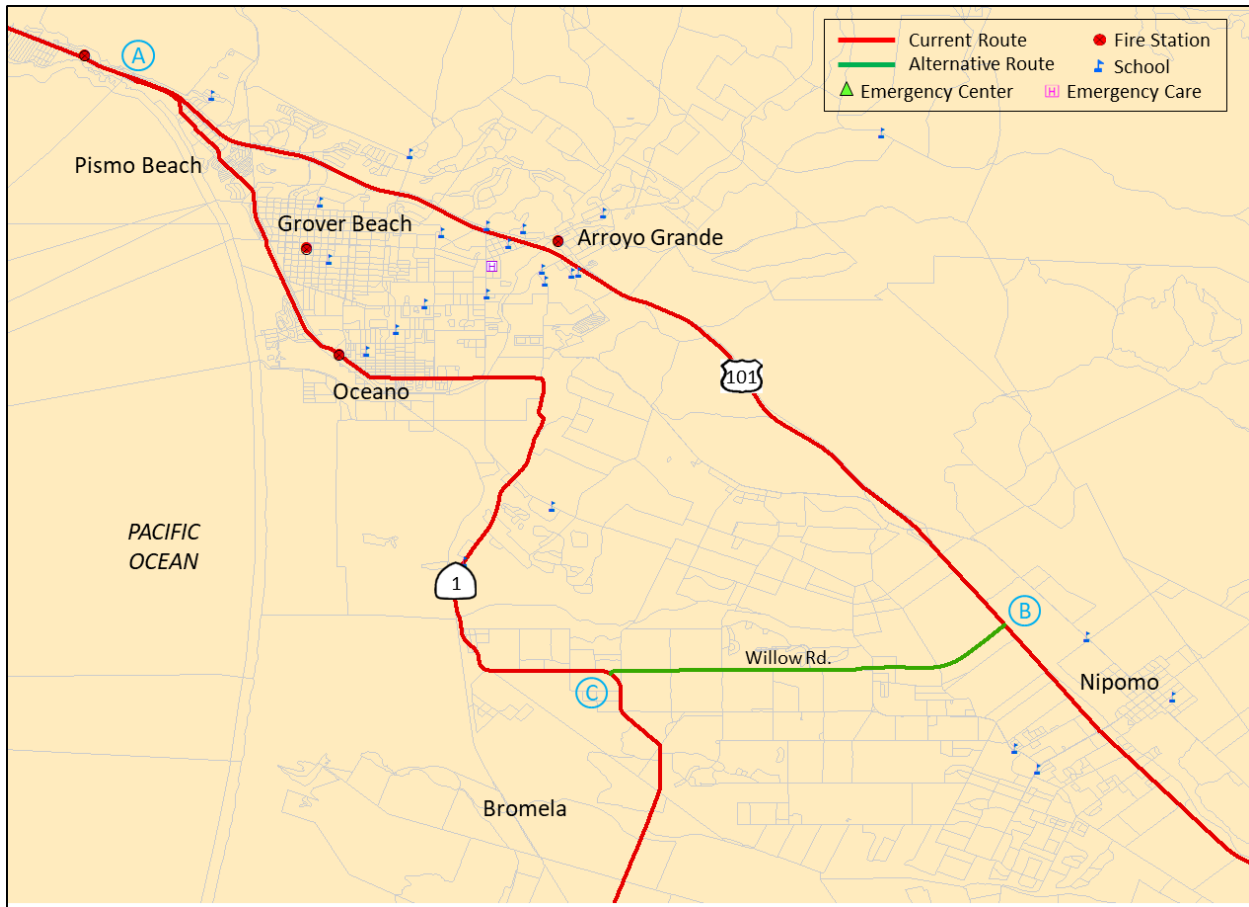


Figure 2: Proposed Alternative Route Evaluated for Transporting Explosives in the Pismo Beach/Grover Beach/Oceano Area

Table 1: Routes Evaluated for Transporting Explosives in the Pismo Beach/Grover Beach/Oceano Area

Alternate Routes	Route Length (mile)	Length Difference (mile)	Ratio (alternates/minimum)	Estimated Drive Time (minute)	Ratio (alternates/minimum)	Potential Population Exposure (<= 1 mile)	Ratio (alternates/minimum)	Crash Rate (crashes per million vehicle miles traveled)	Ratio (alternates/minimum)
Route 1: AC	11.4	0.0	1.00	19	1.19	31,850	1.00	0.49	16.53
Route 2: ABC	15.4	4.0	1.35	16	1.00	32,306	1.01	0.03	1.00

Table 1 (continued)

Alternate Routes	Relative Population Risk (people per million vehicle miles traveled along route)	Ratio (alternates/minimum)	Number of Schools (<= 1 mile)	Ratio (alternates/minimum)	Potential Housing Exposure (<= 1 mile)	Ratio (alternates/minimum)	Relative Housing Risk (housing per million vehicle miles traveled along route)	Ratio (alternates/minimum)
Route 1: AC	15,620	16.30	9	1.00	15,298	1.00	7,503	15.72
Route 2: ABC	958	1.00	15	1.67	16,084	1.05	477	1.00

With a 35 percent longer distance, Route 2 has only a 1 percent higher population and 5 percent more housing units within its one-mile buffer zone from the highways; thus, Route 2 has a lower population density per mile along the route. With a much lower crash rate per million vehicle-miles traveled, Route 2 shows an associated risk in transporting explosives about 16 times lower than Route 1. As CHP's Coastal Division addressed: "The conditions on Willow Road would easily allow for vehicles transporting explosives. Willow Road is commonly used by commercial vehicles accessing locations along SR-1 despite the fact it is not a STAA route." Thus, even though Route 2 has six more schools within its one-mile buffer zone and Willow Rd. is not an STAA highway, with such a huge difference in their associated risks, exceeding the 25-percent federal threshold on significance, the CHP proposes to utilize Willow Rd. to avoid transporting explosives through the downtown and residential areas of Pismo Beach/Grover Beach/Oceano. *Figure 3* presents the proposed Map 12, which updates the explosives routes designated in the Pismo Beach/Grover Beach/Oceano area.

In summary, on the proposed Map 12 for the Pismo Beach/Grover Beach/Oceano area, in addition to adding Nipomo as a map label, this proposed regulatory amendment will remove 11.4 miles of the existing designated routes, including:

- SR-1 between the split/merge of SR-1 and US-101 in Pismo Beach (Point A on *Figure 2*) and the junction of SR-1 and Willow Rd. near Bromela (Point C on *Figure 2*) – 11.4 miles;

and extend 4.1 miles of the designated routes, including:

- Willow Rd. between US-101 near Nipomo and SR-1 near Bromela (Points B and C respectively on *Figure 2*) – 4.1 miles.

STUDIES/RELATED FACTS

The evaluation of possible routes follows the recommended methodologies outlined in the Highway Routing of Hazardous Materials-Guidelines for Applying Criteria (FHWA-HI-97-003) published by the FHWA of the US DOT. The data used for this analysis was obtained from the 2010 census survey conducted by the USCB, the emergency facility sites collected and digitized by the SCEC at the USC in 2012, the traffic-volume counts compiled by Caltrans and COSLO, the crash incidents collected in CHP's SWITRS, and the highway length and transit time derived from Google Earth and Google Maps. When data was not available for certain segments of local roads, the best estimates on traffic-volume counts and/or crash rates are applied. The evaluation was conducted using a GIS with a one-mile buffer zone of the routes referenced in the 2020 ERG issued by US DOT's PHMSA.

CONSULTATION WITH OFFICIALS

These updates were evaluated by the CHP's Commercial Vehicle Section and received concurrence from the CHP's Coastal Division, PBFDF, FCFA, SLOCFD, SFM, and Caltrans.

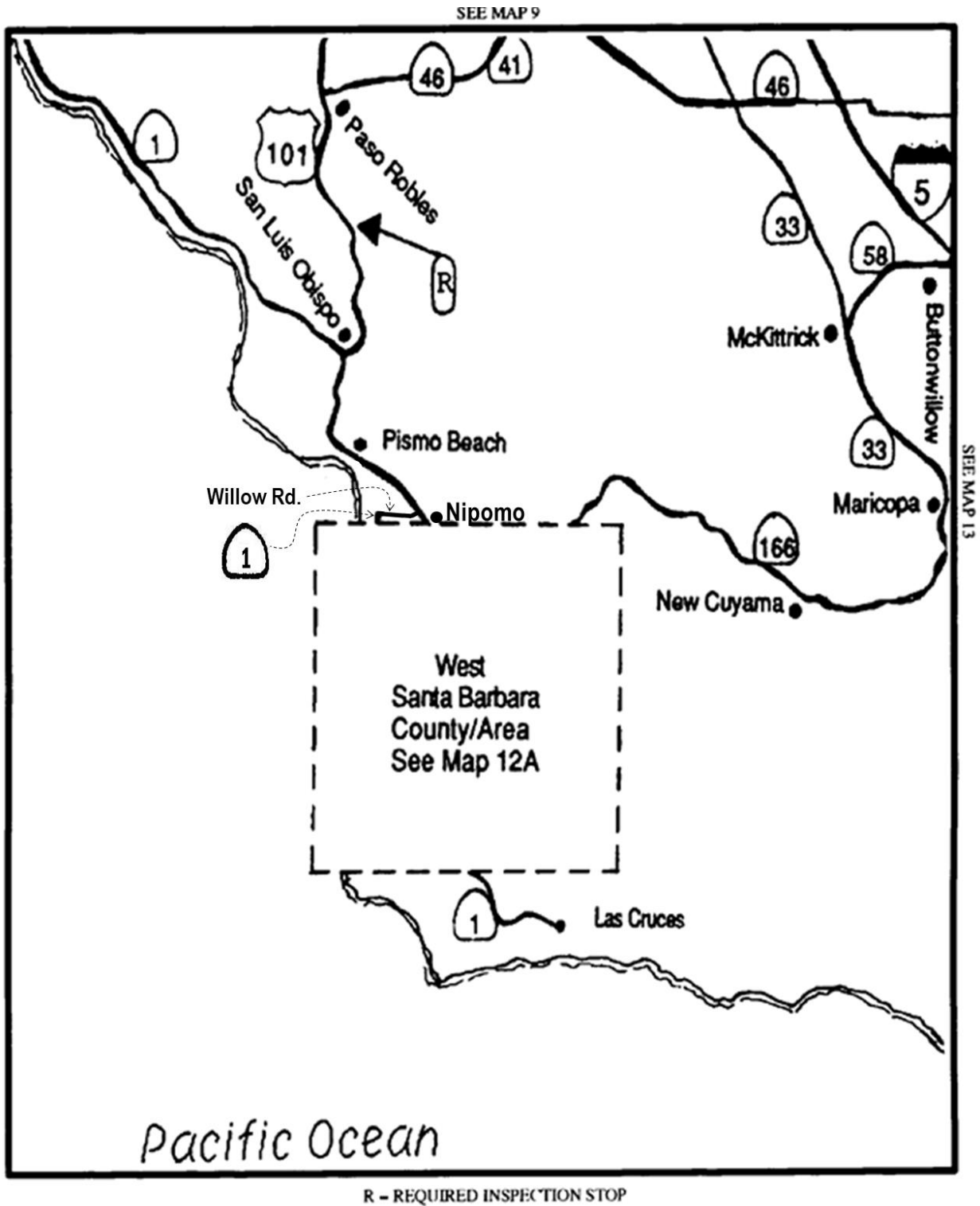


Figure 3: Proposed Map 12 Updating Explosives Routes Designated in the Pismo Beach/Grover Beach/Oceano Area

ALTERNATIVES

Other than the alternatives discussed above, no reasonable alternative considered by the CHP, or otherwise identified and brought to the attention of the CHP, would be more effective in fulfilling the purpose for which the action is proposed, or as effective and less burdensome to affected private persons, than the proposed action. The alternative of making no changes to the existing regulations was rejected because it fails to keep information current in the CCR. Failing to provide updated routes to carriers may increase potential risks of detrimental hazards while transporting explosives in the Pismo Beach/Grover Beach/Oceano area.

LOCAL MANDATE

These regulations do not impose any new mandates on local agencies or school districts.

ECONOMIC IMPACT ANALYSIS

Creation or Elimination of Jobs

The CHP has made an initial determination that this proposed regulatory action will neither create, nor eliminate, jobs within the State of California because the regulation only removes 11.4 miles and extends 4.1 miles of designated explosives routes. The transportation of explosives by commercial vehicles along the discussed routes presents only a very small portion of the total vehicle movement in the state.

Creation of New Business, or Elimination or Expansion of Existing Business

The CHP has not identified any significant adverse impact on the creation of new businesses, or elimination or expansion of existing businesses within the State of California. Businesses involved in the transportation of explosives will have more consistent and updated information on designated routes in the state. The proposed regulatory action will not create new businesses, or eliminate or expand any existing business by transporting explosives via the updated routes.

Benefits of the Regulation

This proposed regulatory action will continue to provide a nonmonetary benefit to the protection of the health and welfare of California residents, workers, and the environment. The changes to the application of the regulation are not substantive and bring the regulation in conformance with existing statute. The proposed changes update and clarify safe and efficient routes designated for carriers transporting explosives, and contribute to transportation safety and public health.

BUSINESS IMPACT TO THE STATE

Based on the economic impact analysis, the CHP has made an initial determination that the proposed regulatory action would have no significant statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states. The proposed regulatory action updates designated highway routes for commercial vehicle carriers transporting explosives in California.

FISCAL IMPACT TO THE STATE

The CHP has determined these regulation amendments will result in:

- No significant increased costs for persons or businesses;
- No significant compliance costs for persons or businesses directly affected;
- No discernible adverse impact on the quantity and distribution of goods and services to large and small businesses or the public;
- No impact on the level of employment in the state; and
- No impact on the competitiveness of California to retain businesses.