

## Memorandum

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California Way of Life!*

**To:** LARA BERTAINA  
Associate Environmental Planner  
Central Coast Environmental Management

**Date:** November 29, 2017

**From:** KEN ROMERO   
Branch Chief  
Central Region Environmental Engineering Branch

**File:** 05-1C3600  
0512000134  
SB-217-PM 1.0

**Subject:** AIR AND NOISE COMPLIANCE STUDIES

### Objective

Air and noise studies for the subject project were conducted by reviewing Photolog, maps, and databases to assess potential environmental impacts.

### Location

This project is located in Santa Barbara County on State Route (SR) 217 at Post Mile 1.0.

### Project Description and Purpose and Need

The proposed project will replace the existing San Jose Creek Bridge due to reactive aggregate. The proposed bridge would have wider shoulders and lanes to meet current standards. The purpose of the project is to maintain safe, multi-modal continuity across the San Jose Creek Bridge. The alternative which most satisfies the purpose and need would have the bigger environmental impact footprint because of the necessity to raise the highway profile due to sea level rise. By raising the highway profile, the on and off-ramp profiles will also need to be raised, along with the adjacent existing bike path. Impacts will be 30 to 50 feet from outside edge of shoulders in both directions of the highway, including the joining on and off-ramps. Environmental impacts to the bridge span area as well as the abutments are anticipated.

### Scope of Work

The following sources were reviewed to determine any potential impacts related to air and noise quality as a result of implementing the project:

- Computer-accessed mapping, DHIPP, which showed the general area within the project limits.
- Computer-accessed air quality site data, for the regional air quality.
- Caltrans Traffic Noise Analysis Protocol, May 2011.



## **Air Quality**

The project is located within the South Central Coast Air Basin in Santa Barbara County. According to 40 CFR Section 93.126 Table 2, the improvements proposed for this project, as mentioned in the project description above, are exempt from the requirement that a conformity determination be made (Widening narrow pavements or reconstructing bridges (no additional travel lanes)). Such projects may proceed toward implementation even in the absence of a conforming transportation plan and Transportation Improvement Program (TIP). This project does not interfere with the implementation of the Traffic Control Measures (TCMs). Please refer to the attached Air Conformity checklist.

During construction, the proposed project will generate air pollutants. The exhaust from construction equipment contains hydrocarbons, oxides of nitrogen, carbon monoxide, suspended particulate matter, and odors. However, the largest percentage of pollutants would be windblown dust generated during excavation, grading, hauling, and various other activities. The exhaust and dust of these activities would vary each day as construction progresses.

Caltrans Standard Specifications pertaining to dust control and dust palliative requirements are a required part of all construction contracts and should effectively reduce and control emissions during construction. The provisions of Caltrans Standard Specifications, Section 14-9.02 "Air Pollution Control" and Section 10-5 "Dust Control," require the contractor to comply with the air pollution control rules, ordinances, and regulations and statutes that apply to work performed under the contract, including those provided in Govt Code § 11017.

Per Santa Barbara County Air Pollution Control District CEQA guidelines, this project involves nominal construction emissions of air contaminants and therefore is exempt from CEQA requirements.

**Based on the description of the proposed project, no further investigation concerning air quality is needed to proceed with the project.**

## **Noise**

Transportation projects subject to Caltrans' Traffic Noise Analysis Protocol are projects defined as Type I projects in Section 23 Code of Federal Regulations §772. This section of the federal regulations describes a Type I project as follows: "A proposed federal or federal-aid highway project for the construction of a highway on a new location, or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment, or increase the number of through-traffic lanes". According to the project description, this project will neither increase the existing traffic capacity nor alter the location of the highway. This is not a Type I project, and a detailed noise analysis is not required for such projects.

## Construction Noise

The project setting at the above post mile is rural. No residences located within 500 feet radius around post mile 1.0 (PM 1.0).

During construction of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Construction noise is regulated by Caltrans Standard Specifications Section 14-8.02 “Noise Control,” which states that noise will not exceed 86 dBA at 50 feet from the job site from 9:00 p.m. to 6 a.m. It also states to control and monitor noise resulting from work activities.

Table 1 summarizes noise levels produced by construction equipment that is commonly used on roadway construction projects. Construction equipment is expected to generate noise levels ranging from 80 to 92 dBA at a distance of 50 feet, and noise produced by construction equipment would be reduced over distance at a rate of about 6 dB per doubling of distance.

**Table 1: Typical Construction Noise Levels**

Noise Source	50-Foot Maximum Noise Level (L <sub>max</sub> ) dBA <sub>2,3</sub>
Air Compressor (portable) <sup>4</sup>	89
Air Compressor (stationary)	89
Auger, Drilled Shaft Rig	89
Backhoe	90
Bar Bender	85
Compactor	85
Concrete Mixer (small trailer)	68
Concrete Mixer Truck	89
Concrete Pump Trailer	84
Concrete Vibrator	81
Forklift	86
Generator	87
Jack Hammer	88
Paver	92
Pneumatic Tool	88
Pump	80
Roller	83
Saw, Electric	80
Tamper	88
Tractor	90
Other Equipment with Diesel	88

Table based on EPA studies and measured data from various construction equipment and manufacturer’s data

No adverse noise related to construction are anticipated because construction would be conducted in accordance with Caltrans Standard Specifications Section 14-8.02 and applicable local noise standards. Construction noise would be short-term and intermittent. As mentioned above no residences located near the construction site. However, implementing the following measures would minimize the temporary noise from construction:

*“Provide a safe, sustainable, integrated and efficient transportation system to enhance California’s economy and livability”*

- All equipment will have sound-control devices that are no less effective than those provided on the original equipment. No equipment will have an unmuffled exhaust.

**In view of the proposed project, no further investigation concerning traffic or construction noise is needed to proceed with the project.**

If you have any questions or the scope of work changes, please contact Allam Alhabaly at (559) 445-6218.



## Transportation Air Quality Conformity Findings Checklist

<b>Project Name:</b> _____
<b>Dist-Co-Rte-PM:</b> <u>05-SB-217-PM-1.0</u> <span style="float: right;"><b>EA:</b> <u>05-1C3600</u></span>
<b>Federal-Aid No.:</b> _____
<b>Document Type:</b> <input checked="" type="checkbox"/> 23 USC 326 CE <input type="checkbox"/> 23 USC 327 CE <input type="checkbox"/> EA <input type="checkbox"/> EIS

**Step 1.** Is the project located in a nonattainment or maintenance area for ozone, nitrogen dioxide, carbon monoxide (CO), PM2.5, or PM10 per EPA's Green Book listing of non-attainment areas?

If no, go to Step 17. **Transportation conformity does not apply to the project.**

If yes, go to Step 2.

**Step 2.** Is the project exempt from conformity per 40 CFR 93.126 or 40 CFR 93.128

If yes, go to Step 17. **The project is exempt from all project-level conformity requirements (40 CFR 93.126 or 128)** (check one box below and identify the project type, if applicable).

40 CFR 93.126    Project type: \_\_\_\_\_

40 CFR 93.128

If no, go to Step 3.

**Step 3.** Is the project exempt from regional conformity per 40 CFR 93.127

If yes, go to Step 8. **The project is exempt from regional conformity requirements (40 CFR 93.127)** (identify the project type). Project type: \_\_\_\_\_

If no, go to Step 4.

**Step 4.** Is the project located in a region with a currently conforming RTP and TIP?

If yes, **the project is included in a currently conforming RTP and TIP per 40 CFR 93.115. The project's design and scope have not changed significantly from what was assumed in RTP conformity analysis (40 CFR 93.115[b])** Go to Step 8.

If no and the project is located in an isolated rural area, go to Step 5.

If no and the project is not located in an isolated rural area, STOP and do not proceed until a conforming RTP and TIP are adopted.

**Step 5.** For isolated rural areas, is the project regionally significant per 40 CFR 93.101, based on review by Interagency Consultation?

If yes, go to Step 6.

If no, go to Step 8. **The project, located in an isolated rural area, is not regionally significant and does not require a regional emissions analysis (40 CFR 93.101 and 93.109[1]).**

**Step 6.** Is the project included in another regional conformity analysis that meets the isolated rural area analysis requirements per 40 CFR 93.109, including Interagency Consultation and public involvement?

If yes, go to Step 8. **The project, located in an isolated rural area, has met its regional analysis requirements through inclusion in a previously-approved regional conformity analysis that meets current requirements (40 CFR 93.109[1]).**

If no, go to Step 7.

**Step 7.** The project, located in an isolated rural area, requires a separate regional emissions analysis.

**Regional emissions analysis for regionally significant project, located in an isolated rural area, is complete. Regional conformity analysis was conducted that includes the project and reasonably foreseeable regionally significant projects for at least 20 years. Interagency Consultation and public participation were conducted. Based on the analysis, the interim or emission budget conformity tests applicable to the area are met (40 CFR 93.109[1] and 95.105).<sup>1</sup> Go to Step 8.**

**Step 8.** Is the project located in a CO nonattainment or maintenance area?

If no, go to Step 9. **CO conformity analysis is not required.**

If yes, **hot-spot analysis requirements for CO per the CO Protocol** (or per EPA's modeling guidance, CAL3QHCR can be used with EMFAC emission factors<sup>2</sup>) **have been met. Project will not cause or contribute to a new localized CO violation (40 CFR 93.116 and 93.123)<sup>3</sup>.** Go to Step 9.

**Step 9.** Is the project located in a PM10 and/or a PM2.5 nonattainment or maintenance area?

If no, go to Step 13. **PM2.5/PM10 conformity analysis is not required.**

If yes, go to Step 10.

<sup>1</sup> The analysis must support this conclusion before going to the next step.

<sup>2</sup> Use of the CO Protocol is strongly recommended due to its use of screening methods to minimize the need for modeling. When modeling is needed, the Protocol simplifies the modeling approach. Use of CAL3QHCR must follow U.S. EPA's latest CO hot spot guidance, using EMFAC instead of MOVES; see: <http://www.epa.gov/otaq/stateresources/transconf/projectlevel-hotspot.htm#co-hotspot>.

<sup>3</sup> As of October 1, 2007, there are no CO nonattainment areas in California. Therefore, the requirements to not worsen existing violations and to reduce/eliminate existing violations do not apply.



**Step 10.** Is the project considered to be a Project of Air Quality Concern (POAQC), as described in EPA's Transportation Conformity Guidance for PM 10 and PM 2.5?

- If no, **the project is not a project of concern for PM10 and/or PM2.5 hot-spot analysis based on 40 CFR 93.116 and 93.123 and EPA's Hot-Spot Analysis Guidance. Interagency Consultation concurred with this determination on \_\_\_\_\_.** Go to Step 12.
- If yes, go to Step 11.

**Step 11.** The project is a POAQC.

- The project is a project of concern for PM10 and/or PM2.5 hot-spot analysis based on 40 CFR 93.116 and 93.123, and EPA's Hot-Spot Guidance. Interagency Consultation concurred with this determination on \_\_\_\_\_. Detailed PM hot-spot analysis, consistent with 40 CFR 93.116 and 93.123 and EPA's Hot-Spot Guidance, shows that the project would not cause or contribute to, or worsen, any new localized violation of PM10 and/or PM2.5 standards.** Go to Step 12.

**Step 12.** Does the approved PM SIP include any PM10 and/or PM2.5 control measures that apply to the project, and has a written commitment been made as part of the air quality analysis to implement the identified SIP control measures? [(Control measures can be found in the applicable Federal Register notice at: <http://www.epa.gov/otaq/stateresources/transconf/reg9sips.htm#ca.>]

- If yes, **a written commitment is made to implement the identified SIP control measures for PM10 and/or PM2.5 through construction or operation of this project (40 CFR 93.117).** Go to Step 14.
- If no, go to Step 13.

**Step 13a.** Have project-level mitigation or control measures for CO, PM10, and/or PM2.5, included as part of the project's design concept and scope, been identified as a condition of the RTP or TIP conformity determination? AND/OR

**Step 13b.** Are project-level mitigation or control measures for CO, PM10, and/or PM2.5 included in the project's NEPA document?

AND

**Step 13c** (applies only if Step 13a and/or 13b are answered "yes"). Has a written commitment been made as part of the air quality analysis to implement the identified measures?

- If yes to 13a and/or 13b and 13c, **a written commitment is made to implement the identified mitigation or control measures for CO, PM10, and/or PM2.5 through construction or operation of this project. These mitigation or control measures are identified in the project's NEPA document and/or as conditions of the RTP or TIP conformity determination<sup>1</sup> (40 CFR 93.125(a)).** Go to Step 14.
- If no, go to Step 14

**Step 14.** Does the project qualify for a 771.117(c)(22), (c)(23), (c)(26), (c)(27), or (c)(28)<sup>4</sup> Categorical Exclusion pursuant to 23 USC 326 and is an Air Quality Conformity Analysis required to document any analysis required by Steps 1 through 13 of this form?<sup>5</sup>

- If yes, then Caltrans prepares the Air Quality Conformity Analysis and makes the conformity determination. No FHWA involvement is required. See the [AQCA Annotated Outline](#). Go to Step 17.
- If no, go to Step 15.

**Step 15.** Does the project qualify for any Categorical Exclusion pursuant to 23 USC 326 (including 771.117(c)(22), (c)(23), (c)(26), (c)(27), or (c)(28) when NO Air Quality Conformity Analysis is required)?

- If yes, then no FHWA involvement is required and Caltrans makes the conformity determination through its signature on the CE form. **An Air Quality Conformity Analysis (AQCA) is not needed.** Go to Step 17.
- If no, go to Step 16.

**Step 16.** Does the project require preparation of a Categorical Exclusion, EA, or EIS pursuant to 23 USC 327?

- If yes, then Caltrans submits a conformity determination to FHWA for FHWA's conformity determination. **An AQCA is needed.** See the [AQCA Annotated Outline](#).

Date of FHWA air quality conformity determination: \_\_\_\_\_

Go to Step 17.

**Step 17. STOP as all air quality conformity requirements have been met.**

**Signature:** Allam Alhabaly

**Printed Name:** Allam Alhabaly

**Date:** 11/29/2017

**Title:** Transportation Engomeer, civil

<sup>4</sup> Please note that certain activities covered by these categorical exclusions may require that Caltrans prepare an Air Quality Conformity Analysis rather than documenting the conformity determination with the Senior Environmental Planner's signature on the Categorical Exclusion form.

<sup>5</sup> Please note that for ALL projects the project file must include evidence that one of the three following situation applies: 1) Conformity does not apply to the project area; or 2) The project is exempt from all conformity analysis requirements; or 3) The project is subject to project-level conformity analysis (and possibly regional conformity analysis) and meets the criteria for a conformity determination. The project file must include all supporting documentation and this checklist.