

<b>RTIP ID#</b> <i>(required)</i> 20061012	
<b>TCWG Consideration Date</b> August 26, 2014	
<p><b>Project Description</b> <i>(clearly describe project)</i></p> <p>The Redlands Passenger Rail Project (RPRP) would involve the implementation of necessary improvements to facilitate commuter rail service between E Street in the City of San Bernardino and the University of Redlands in the City of Redlands (Figure 1). The five station stops proposed in conjunction with the RPRP would be located at E Street and Tippecanoe Avenue within the City of San Bernardino and New York Street, Orange Street (Downtown Redlands), and University Street (University of Redlands) within the City of Redlands. As part of the Preferred Project, maintenance activities would be performed at a new layover facility proposed west of California Street and south of Interstate 10 (I-10) in the City of Redlands, just north of the Loma Linda city limits (Figures 1 and 2).</p> <p>Local rail service would be provided by up to two trainsets composed of up to two cars and one locomotive shuttling between the University of Redlands and San Bernardino on 30-minute headways during the peak morning and evening periods and on 1-hour headways during off-peak hours and weekends. Up to two Metrolink express trains would also run westbound in the AM peak period and eastbound in the PM peak period, originating/terminating at the Downtown Redlands Station and will be composed of a typical Metrolink trainset. With the exception of the express train, daily operations would not interline with Metrolink’s Los Angeles Union Station line (Metrolink San Bernardino line) or Inland Empire to Orange County line (Metrolink IEOC line). Rather, the RPRP would interface with Metrolink’s IEOC and San Bernardino lines at E Street to facilitate commuter rail service farther west into Los Angeles.</p> <p>Project construction would include track improvements, rail platform improvements, structural crossings and bridges, roadway grade crossings, parcel acquisitions and relocations, construction of a layover facility, utility replacement and relocation, drainage improvements, and train and rail maintenance.</p> <p>The project includes options for both typical metrolink trainsets (MP36 and F59 locomotive types) as well as a Diesel Multiple Unit (DMU) vehicle type. Aside from direct train-related emissions, which would differ based on engine type, construction and operation of each alternative, including effects on regional vehicle travel, would be similar for each option.</p> <p>See <b>Attachment 1</b> for a detailed Project Description.</p>	
<p><b>Type of Project</b> <i>(use Table 1 on instruction sheet)</i></p> <p>Regional commuter rail project (not listed in Table 1), and bus, rail, or inter-modal facility/ terminal/ transfer point (listed in Table 1).</p>	
<p><b>County</b> San Bernardino</p>	<p><b>Narrative Location/Route &amp; Postmiles</b></p> <p>The Project starts just west of MP 1, east of E Street within the City of San Bernardino and ends at MP 10.1 at the University of Redlands.</p> <p>The Project originates at or about the railroad crossing at E Street, just west of MP 1, and extends east approximately 1/2 mile before turning southward, transitions back to the east at MP 3, crosses Interstate 10 at approximately MP 5.5, just west of Waterman Avenue, crosses the Santa Ana River (SAR) at MP 3.5, then essentially parallels I-10 until MP10.1.</p> <p><b>Figure 1</b> depicts the Project Location.</p> <p><b>Caltrans Projects – EA#</b> N/A</p>
<b>Lead Agency:</b> SANBAG	

PM Conformity Hot Spot Analysis – Project Summary for Interagency Consultation

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<b>Hot Spot Pollutant of Concern</b> ( <i>check one or both</i> ) <b>PM2.5 X</b> <b>PM10 X</b>				
<b>Federal Action for which Project-Level PM Conformity is Needed</b> ( <i>check appropriate box</i> )				
<b>Categorical Exclusion (NEPA)</b>	<input checked="" type="checkbox"/> <b>EA or Draft EIS</b>	<b>FONSI or Final EIS</b>	<b>PS&amp;E or Construction</b>	<b>Other</b>
<b>Scheduled Date of Federal Action:</b> March 2015				
<b>NEPA Assignment – Project Type</b> ( <i>check appropriate box</i> )				
<b>Exempt</b>	<b>Section 326 –Categorical Exemption</b>	<input checked="" type="checkbox"/> <b>Section 327 – Non-Categorical Exemption</b>		
<b>Current Programming Dates</b> ( <i>as appropriate</i> )				
	<b>PE/Environmental</b>	<b>ENG</b>	<b>ROW</b>	<b>CON</b>
<b>Start</b>	2012	2014	2015	2015
<b>End</b>	2015	2015	2017	2018
<p><b>Project Purpose and Need (Summary):</b> (<i>attach additional sheets as necessary</i>)</p> <p>The overall purpose of the Project is to provide a cost-effective, alternative travel option for communities located along the Redlands Corridor in a way that maintains freight service and improves transit mobility, travel times, and corridor safety while minimizing adverse environmental impacts. The Project would provide travelers and commuters with a new mobility option within a dedicated right-of-way (ROW) that would be capable of achieving shorter travel times than automobiles while facilitating the continuation of existing freight service along the rail corridor consistent with SANBAG’s purchase agreement with the BNSF Railroad. Through implementation of the Project, SANBAG would provide new passenger rail service through the communities of Redlands, Loma Linda, and San Bernardino.</p> <p>The construction and operation of new passenger rail service from San Bernardino to Redlands is identified as a key project in the Measure I 2010–2040 Strategic Plan. The RPRP would address the transportation needs of the Redlands Corridor as identified in SANBAG’s Measure I Strategic Plan and SCAG’s 2012-2035 RTP/SCS, which also identifies the Project as a means to address regional travel patterns within a delineated High Quality Transit Area.</p> <p>Roadway congestion in southwestern San Bernardino County has impacted the quality-of-life for the region by increasing commute travel times for work or recreational purposes, contributing to hours of lost productivity, increased fuel consumption contributing to air pollution, interference with emergency response vehicles, and spillover effects to secondary and alternative routes. The region’s major highways have limited expansion potential, due in large part to constrained rights-of-way and the cost of right-of-way acquisition, yet are heavily relied upon by commuters to access major employment centers west of the Redlands Corridor in Orange and Los Angeles Counties. The Project is identified as a critical transportation need for the region and represents a critical first step in the implementation of transportation solutions as identified in Southern California Association of Governments (SCAGs) Regional Comprehensive Plan and Guide (2008 RCPG), 2012 Regional Transportation Plan / Sustainable Communities Strategy (2012 RTP/SCS), and 2013 Federal Transportation Improvement Program (2013 FTIP).</p> <p>See <b>Attachment 2</b> for a full description of the Project’s Purpose and Need.</p>				

**Surrounding Land Use/Traffic Generators (especially effect on diesel traffic)**

Surrounding land uses along the project rail corridor include a mix of residential, industrial, and recreational land uses, with residential and commercial land uses near each of the proposed stations and parking lots. The closest sensitive receptors are located within 50 feet (15 meters) of idling activities (stationary train idling emissions) at the proposed University of Redlands station, with various receptor locations immediately adjacent the project area and right-of-way (mobile train emissions).

**Figure 2** depicts surrounding land uses.

The project would result in the following trip or traffic generators:

- extended diesel passenger train travel associated with existing Metrolink passenger rail service;
- new vehicle trips and operations associated with layover maintenance, and;
- new vehicle trips associated with the park and ride lots at the Tippecanoe Street (up to 20 spaces), New York Street (up to 30 spaces), Downtown Redlands (up to 70 spaces), and University of Redlands (up to 40 spaces) stations.

The project would introduce diesel-related train traffic in areas where sensitive land uses (residential and recreational) are currently located. These areas are located within approximately 50 feet from the proposed idling activities at the University of Redlands station and immediately adjacent train movement within the project alignment (refer to **Figure 2** for the location of sensitive receptors relative to the project alignment).

The project would remove single-occupancy passenger vehicles from the regional roadway network, which would help reduce congestion and associated emissions at nearby roadways and intersections frequented by diesel truck traffic. However, the project would place new diesel-related activities (i.e., diesel passenger rail engines) adjacent to existing sensitive receptors near the project corridor. The proposed new train layover facility, proposed west of California Street and south of I-10 in the City of Redlands, just north of the Loma Linda city limits. Under Design Option 1, an alternate layover facility is proposed in the City of San Bernardino, west of the Santa Ana River and immediately north of the rail corridor. Under Design Option 2, no layover facility would be constructed, and layover operations would be integrated with existing train layover facilities at Metrolink’s Eastern Maintenance Facility (EMF) and Inland Empire Maintenance Facility (IEMF) (see Figure 2). Layover activities for each layover option would include two trains at the end of each day, with employment of 16 staff members.

The project does not propose any changes to local bus service or bus routes. The project EIR/EIS contains mitigation to require potential future changes to bus service and routes to be coordinated between SANBAG and Omnitrans. Additionally, the current Omnitrans fleet consists of 161 transit coaches and 106 OmniGo/Omnilink/Access vehicles. A single diesel-powered bus exists in the fleet, which is solely used for community events and parades, while the remainder are powered by compressed natural gas (CNG) buses. A summary of the current Omnitrans bus fleet is shown in **Attachment 3**.

PM10 and PM2.5 concentrations were evaluated as part of the human health risk assessment (HRA) performed for each of the proposed project options, analyzing the combined health risk effects of the diesel emissions associated with project-related construction equipment, train movement within the project corridor, and train idling at the proposed stations and layover facility. The HRA was conducted using United States Environmental Protection Agency (EPA) emission factors for locomotives (for the MP36 and F59 options) and nonroad engines (for the DMU option) to estimate the emissions inventory, while the EPA’s AERSCREEN dispersion model was used to model pollutant concentrations at nearby receptor locations. Note that the analysis assumed Tier 4 standards to each locomotive type per guidance from the project engineers. Results from the dispersion modeling conducted for the HRA indicates modeled maximum hourly PM concentrations from AERSCREEN and associated scaled 24-hour and annual PM concentrations due to train idling and movement at nearby receptor locations would be far below the appropriate NAAQS (refer to Table 1). Further, results from the HRA indicate that the project would not result in adverse long-term effects on human health near the project area, as predicted cancer-related health risks were estimated at 1.76 per million (for the MP39 and F59 options) and 1.23 per million (for the DMU option), far below SCAQMD’s health risk thresholds of 10 per million.

**Table 1- Maximum Pollutant Concentrations at Nearby Receptors**

Activity	Maximum Receptor (meters)	Max 1-hour from AERSCREEN	Scaled 24-hour Concentration	24-Hour PM10 NAAQS	24-Hour PM2.5 NAAQS	Scaled Annual Concentration	Annual PM2.5 NAAQS
<b>MP39 and F59 Locomotives</b>							
Train Idling (at University of Redlands Station)	15	0.217	0.130	150	35	0.0217	12.0
Train Idling at Proposed Layover Facility	40	0.198	0.119	150	35	0.0198	12.0
Train Movement	25	0.004	0.003	150	35	0.0004	12.0
<b>DMU Locomotive</b>							
Train Idling (at University of Redlands Station)	15	0.044	0.0267	150	35	0.0044	12.0
Train Idling at Proposed Layover Facility	40	0.027	0.0160	150	35	0.0027	12.0
Train Movement	25	0.001	0.0005	150	35	0.0001	12.0
24-hour and annual PM concentrations were estimated based on scaling maximum hourly concentrations from AERSCREEN by 0.6 and 0.1, respectively, per the AERSCREEN users guide (March 2011).							

<p><b>Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility</b></p> <p>Not applicable. This is not a highway project.</p>
<p><b>RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility</b></p> <p>Not applicable. This is not a highway project.</p>
<p><b>Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT</b></p> <p>Not applicable. This is not a highway project.</p>
<p><b>RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT</b></p> <p>Not applicable. This is not a highway project.</p>
<p><b>Describe potential traffic redistribution effects of congestion relief (<i>impact on other facilities</i>)</b></p> <p>The project would provide mass transit opportunities that would provide an alternative to single-occupancy-vehicle travel, thereby redistributing traffic and reducing vehicle miles traveled (VMT) within the region. As shown in <b>Attachment 4</b>, the Build Alternative with Express Train Service would reduce region-wide daily VMT by 12,815 VMT (0.003%) over No Build conditions in 2038, which would reduce congestion on nearby roadways throughout the region.</p> <p>The project may close up to six at-grade intersections, which could potentially redistribute traffic along adjacent roadway that will remain open.</p>

**Comments/Explanation/Details** *(attach additional sheets as necessary)*

The proposed project is intended to provide mass transit opportunities to the area thereby provided an alternative to single-passenger travel within the region. The project would generate minor amount of traffic associated with the layover facility as well as the park and ride lots at each station. However, by providing mass transit opportunities, the project would reduce VMT with the region, thereby reducing regional congestion.

In December 2010, the USEPA and FHWA finalized a guidance document titled *Transportation Conformity Guidance for Quantitative Hotspot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas*. This guidance details a qualitative step-by-step screening procedure to determine whether project-related particulate emissions have a potential to generate new air quality violations, worsen existing violations, or delay attainment of NAAQS for PM2.5 or PM10. The proposed project is in an area designated as nonattainment for PM2.5 and designated as a serious maintenance area for PM10. According to the most recent USEPA Transportation Conformity Guidance, a PM10/PM2.5 hot-spot analysis is required for Projects of Air Quality Concern (POAQC) in non-attainment and maintenance areas (40 CFR 93.123 (b) (1)). Projects that are exempt under 40 CFR 93.126 or not POAQC do not require hot-spot analysis.

The proposed project does not meet the criteria of an exempt project under 40 CFR 93.126. However, the USEPA specifies in 40 CFR 93.123(b) (1) that only projects considered POAQC are required to undergo a PM10/PM2.5 hot-spot analysis. USEPA defines projects of air quality concern as certain highway and transit projects that involve significant levels of diesel traffic or any other project that is identified by the PM10 or PM2.5 SIP as a localized air quality concern. A discussion of the proposed RPRP project compared to examples of POAQC's, as defined by 40 CFR 93.123(b) (1), is provided below:

*1) New or expanded highway projects with greater than 125,000 annual average daily traffic (AADT) and 8 percent or more of such AADT is diesel truck traffic.*

The proposed project is not a new or expanded highway project. However, based on information from the traffic analysis, maximum annual AADT on streets near the project area are estimated to be 63,501 AADT at the Tippecanoe Ave and I-10 westbound ramps in year 2038 under Build conditions, based on an industry-accepted adjustment factor of 10 to convert PM peak hour volumes to AADT. See **Attachment 5**. These volumes are well below the EPA's guidance threshold of 125,000 ADT. Additionally, assuming truck volumes at the Tippecanoe Ave and I-10 westbound ramps are 13.2% based on Caltrans traffic data, truck volumes are anticipated to be between an estimated 8,382 AADT, well below the EPA's guidance threshold of 10,000 (8% of 125,000). Note that the project is anticipated to reduce overall AADT at Tippecanoe Ave and I-10 westbound ramps over No Build conditions.

*2) New or expanded highway projects affecting intersections that are at Level of Service (LOS) D, E, or F with a significant number of diesel vehicles or those that will change to LOS D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project.*

The proposed project is not a new or expanded highway project. However, as shown within **Attachment 5**, V/C and LOS for intersections affected by the project will degrade at some intersections compared to the No Build conditions in 2018 and 2038. Further, the project would not include any changes to existing or planned future bus activities or routes, and any future modifications to bus service will be coordinated between SANBAG and Omnitrans, which primarily consist of CNG buses.

*3) New or expanded bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location.*

The proposed project would extend Metrolink commuter rail service between E Street in the City of San Bernardino and the University of Redlands in the City of Redlands, bringing 66 weekday daily train trips to the area. Trains would idle at the new stations, which would be located at E Street and Tippecanoe Avenue within the City of San Bernardino and the New York Street, Orange Street (Downtown Redlands), and University Street (University of Redlands) within the City of Redlands. Each train is anticipated to idle for up to 5 minutes at a time before leaving the station at the E Street and University of Redlands stations, which 40 second stops anticipated at the Tippecanoe Avenue, New York Street, and Downtown Redlands stations.

The closest sensitive receptors are located approximately 50 feet (15 meters) from proposed idling activities at the University of Redlands station. Additionally, the closest sensitive receptors are located approximately 130 feet (40 meters) from activities at the proposed layover facility and approximately 245 feet (75 meters) from activities at the alternative layover facility. Note that it is assumed that the entire Metrolink fleet at Opening Day 2018 for all options (locomotive and DMU types) is assumed to be consistent with EPA's Tier 4 standards for either locomotives (for MP36 and F59 locomotive types) or NONROAD engines (for the DMU option). As previously indicated in Table 1, modeled PM concentrations from train activities (i.e., train idling at stations and movement along the rail alignment) at nearby receptor locations would be far below 24-hour PM10 as well as 24-hour and annual PM2.5 NAAQS, and the project is not anticipated to generate new air quality violations, worsen existing violations, or delay attainment of NAAQS for PM2.5 or PM10.

*4) Projects in or affecting locations, areas, or categories of sites that are identified in the PM2.5 and PM10 applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.*

The project site is not in or affecting an area or location identified in any PM2.5 or PM10 implementation plan. The immediate project area is not considered to be a site of violation or possible violation.

**Conclusion**

Based on the information provided above, the proposed project is not expected to introduce significant amounts of diesel truck traffic, would not generate additional diesel truck traffic above levels anticipated without implementation of the project, and is in compliance with the RTP/RTIP. Further, dispersion modeling of project-related diesel activities (construction and train idling and movement) indicates the project would not exceed PM10 or PM2.5 NAAQS. Therefore, the project is not considered to be a POAQC based on the definition contained in 40 CFR 93.123(b)(1). The proposed project would also not be considered a project of air quality concern with respect to PM10 or PM2.5 emissions as defined by 40 CFR 93.123(b) (1). Therefore, a PM10/PM2.5 hot-spot evaluation is not required.