CEQA Findings of Fact
and
Statement of Overriding Considerations

Pursuant to CEQA Guidelines Section 15091 and Public Resources Code Section 21081

Antelope Valley Line
Capacity and Service Improvements Program

December 2021

Metro

In Association with:

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ABBREVIATIONS/ACRONYMS

AVL	Antelope Valley Line
Caltrans	California Department of Transportation
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CO	Carbon Monoxide
CRHR	California Register of Historical Resources
dBA	A-weighted Scale
EIR	Environmental Impact Report
GHG	Greenhouse Gas
LAUS	Los Angeles Union Station
Metro	Los Angeles County Metropolitan Transportation Authority
NO_x	Nitrogen
NPDES	National Pollution Discharge Elimination System
O3	Ozone
PM_{10}	Respirable Particulate Matter Ten Microns or Less in Diameter
$PM_{2.5}$	Fine Particulate Matter 2.5 Microns or Less in Diameter
PRC	Public Resources Code
ROW	Right-of-Way
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SCORE	Southern California Optimized Rail Expansion
SCRRA	Southern California Regional Rail Authority
SWPPP	Stormwater Pollution Prevention Plan
TCR	Tribal Cultural Resource
UPRR	Union Pacific Railroad
USFWS	U.S. Fish & Wildlife Services
VMT	Vehicle Mile Traveled
VOC	Volatile Organic Compound

1. INTRODUCTION

The Antelope Valley Line (AVL) Capacity and Service Improvement Program (Proposed Project) qualifies for a statutory exemption from the California Environmental Quality Act (CEQA) granted by the State legislature. In particular, the Proposed Project is statutorily exempt from CEQA under Section 21080 (b)(10) of the California Public Resources Code (PRC) (also found in State CEQA Guidelines [Title 14 California Code Regulations, § 15000 et seq], Section 15275(b), Specified Mass Transit Projects), which provides that CEQA does not apply to:

> *A project for the institution or increase of passenger or commuter services on rail or highway rights-of-way already in use, including the modernization of existing stations and parking facilities.*

The Proposed Project is a project for the institution or increase of passenger and commuter services on rail already in use, including the modernization of existing stations and parking facilities. Therefore, the Proposed Project is exempt from CEQA under PRC Section 21080(b)(10) and CEQA Guidelines Section 15275(b). The Los Angeles County Metropolitan Transportation Authority (Metro) has nevertheless elected to prepare an Environmental Impact Report (EIR) in the interest of comprehensively addressing community and stakeholder concerns and in an effort to provide a clear record of the potential environmental impacts of the Proposed Project. It also provides mitigation measures to address potential impacts to decision-makers and the public.

Metro followed a prescribed process, in accordance with CEQA regulations, to identify the issues to be analyzed in the EIR, including the solicitation of input from the public, stakeholders, elected officials, and other affected parties. Implementation of the Proposed Project would result in significant and unavoidable environmental impacts related to air quality, greenhouse gas emissions and construction-period noise and vibration, even with the incorporation of certain mitigation measures as part of the Proposed Project's approval. Section, 5. Environmental Impacts Found to be Significant and Unavoidable, below provides greater detail on the Proposed Project's significant and unavoidable environmental impacts. The statement of overriding considerations in Section 10.0 of this document identifies economic, social, technical, and other benefits of the Proposed Project that override any significant and unavoidable environmental impacts that would result from the Proposed Project. In accordance with CEQA, Metro, in adopting these Findings of Fact, also adopts a Mitigation Monitoring and Reporting Program (MMRP). Metro finds that the MMRP, which is included in Chapter 4 of the Proposed Project's Final EIR and is provided as Attachment B to the December Metro Board Report, meets the requirements of Public Resources Code (PRC) Section 21081.6 by providing for the implementation and monitoring of measures to mitigate potentially significant effects of the Proposed Project.

In accordance with the CEQA Guidelines, Metro adopts these findings as part of the approval of the Proposed Project. Pursuant to PRC Section 21082.1(c)(3) and CEQA Guidelines Section 15090, Metro certifies the Final EIR:

1) Has been completed in compliance with the CEQA;

2) Was presented to the Metro Board of Directors and the Board considered the information contained therein prior to approving the Proposed Project; and

3) Reflects Metro's independent judgment and analysis.

2. ORGANIZATION

The CEQ Findings of Fact and Statement of Overriding Considerations is comprised of the following sections:

Section 1.	Introduction to the Proposed Project and Final EIR
Section 2.	Organization of this document
Section 3.	A brief description of the Proposed Project and its objectives
Section 4.	Statutory requirements of the findings and a record of proceedings
Section 5.	Significant environmental impacts of the Proposed Project that cannot be mitigated to a less-than-significant level even with the identification and incorporation of all feasible mitigation measures
Section 6.	Potentially significant environmental impacts of the Proposed Project that can be mitigated to a less-than-significant level
Section 7.	Environmental impacts that are less than significant or have no impact
Section 8.	Findings regarding alternatives
Section 9.	Findings regarding mitigation measures
Section 10.	Statement of Overriding Considerations

3. PROJECT DESCRIPTION AND OBJECTIVES

The AVL plays a critical role in connecting communities in North Los Angeles County to Los Angeles Union Station (LAUS) and the cities in between. Prior to the Coronavirus Disease 19 (COVID 19) pandemic, the AVL carried the third highest ridership in Metrolink's commuter rail system and was responsible for removing approximately one million weekday automobile trips from the region's roadways a year. Consistent with the State Rail 20240 Plan and Metrolink's Southern California Optimized Rail Expansion (SCORE) program, and in anticipation of substantial population and employment growth in the North Los Angeles County region over the next 20 years, Metro seeks to improve rail service on the AVL to realize its full potential as a regional mobility enhancement and not just a peak-hour commuter service. Accordingly, the AVL Capacity and Service Improvement Program (Proposed Project) seeks to:

- Provide regular and more frequent Metrolink services to improve regional connectivity and accessibility through the enabling of 30-minute bi-directional passenger rail service to the Santa Clarita Valley and 60-minute bi-directional service to Lancaster along the AVL corridor.

- Improve passenger service reliability and efficiency on the AVL rail corridor.

- Provide necessary infrastructure improvements to enhance operational flexibility and reliability along the AVL corridor.

- Support the vision and goals for rail service in the region consistent with the California State Rail 2040 Plan and Metrolink's SCORE program.

The Proposed Project involves the construction of three capital improvements which would provide the capacity required to allow Metrolink commuter rail service to increase along the AVL to 30-minute bi-directional headways between Los Angeles Union Station (LAUS) and the Santa Clarita Valley and up to 60-minute bi-directional headways between the Santa Clarita Valley and the Lancaster Terminal by the year 2028. The three capital improvements include the Balboa Double Track Extension located in the City of Los Angeles, the Canyon Siding Extension located in the City of Santa Clarita, and the Lancaster Terminal Improvements located in the City of Lancaster.

The three capital improvements are described below, with two of the capital improvements having options for alternate station platform configurations, which are proposed to provide additional flexibility for future operation. Construction of each capital improvement and their associated options, as well as the operational impacts of increased Metrolink service, have been assessed in the EIR:

- **Balboa Double Track Extension**. The Balboa Double Track Extension would extend the existing double track approximately 6,300 feet north from Balboa Boulevard to Sierra Highway in the City of Los Angeles. This would provide operational capacity for Metrolink to schedule more regular services, especially in the off-peak period. Subject to design, retaining structures will be considered to avoid encroachments outside of the right-of-way (ROW).

- **Canyon Siding Extension.** The Canyon Siding Extension would add approximately 8,400 feet of new double track between Soledad Canyon Road and Golden Oak Road in the City of Santa Clarita. This improvement would include a second side-platform at the existing Santa Clarita Station and a new crossover track south of the Station. This new crossover track would be added to facilitate turnback of Metrolink trains at Santa Clarita Station and improve operational flexibility and reliability.
    - *Platform to Platform Pedestrian Undercrossing Design Option* – This design option would provide a grade separated pedestrian undercrossing at Santa Clarita Station to connect the existing platform to the proposed second platform.
    - *Island Platform with Platform to Parking Lot Pedestrian Undercrossing Design Option* – This design option would provide a new island platform (with two platform faces) and would include a grade separated pedestrian undercrossing connecting the Santa Clarita Station parking area to the new island platform.

- **Lancaster Terminal Improvements.** The Lancaster Terminal Improvements would include expansion of the existing train layover facilities by adding one new 1,000-foot-long and two 500-foot-long train storage tracks in the vicinity of the existing Lancaster Station in the City of Lancaster with provisions for fueling.
    - *Island Platform with Pedestrian Undercrossing Design Option* – This design option would provide an island platform with two platform faces at Lancaster Station and a grade separated pedestrian undercrossing (tunnel) to provide access to the new platform.
    - *Island Platform with Pedestrian Overcrossing Design Option* – This design option would provide an island platform with two platform faces at Lancaster Station and a grade separated pedestrian overcrossing (bridge) to provide access to the new platform.
    - *Island Platform with Pedestrian At-Grade Crossing Design Option* – This design option would provide an island platform with two platform faces at Lancaster Station and two at-grade pedestrian crossings at the north and south ends of the new platform.

4. STATUTORY REQUIREMENTS

CEQA (PRC Section 21081), and particularly the CEQA Guidelines (Title 14 California Code Regulations Section 15091) require that:

(a) No public agency shall approve or carry out a project for which a certified EIR identifies one or more significant environmental effects of the Proposed Project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. The possible findings are:

1. Changes or alterations have been required in, or incorporated into, the Proposed Project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR. (CEQA Finding 1)
2. Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency. (CEQA Finding 2)
3. Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final EIR. (CEQA Finding 3)

(b) The findings required by subdivision (a) shall be supported by substantial evidence in the record.

(c) The finding in subdivision (a)(2) shall not be made if the agency making the finding has concurrent jurisdiction with another agency to deal with identified feasible mitigation

measures or alternatives. The finding in subdivision (a)(3) shall describe the specific reasons for rejecting identified mitigation measures and project alternatives.

(d) When making the findings required in subdivision (a)(1), the agency shall also adopt a program for reporting on or monitoring the changes which it has either required in the project or made a condition of approval to avoid or substantially lessen significant environmental effects. These measures must be fully enforceable through permit conditions, agreements, or other measures.

(e) The public agency shall specify the location and custodian of the documents or other material which constitute the record of the proceedings upon which its decision is based.

(f) A statement made pursuant to Section 15093 does not substitute for the findings required by this section.

CEQA requires that the lead agency adopt mitigation measures or alternatives, where feasible, to avoid or mitigate significant environmental impacts that would otherwise occur with implementation of the Proposed Project. However, mitigation or alternatives are not required if they are infeasible or if the responsibility for modifying the Proposed Project lies with another agency.[1]

For those significant impacts that cannot be mitigated to less-than-significant levels, the lead agency is required to find that specific overriding economic, legal, social, technological, or other benefits of the Proposed Project outweigh the significant impacts on the environment.[2] CEQA Guidelines Section 15093(a) states that, "If the specific economic, legal, social, technological, or other benefits of a Proposed Project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered 'acceptable.'" If the adverse environmental effects are considered acceptable, as is the case with the Proposed Project, the lead agency is required to prepare a Statement of Overriding Considerations.

4.1 RECORD OF PROCEEDINGS

For purposes of CEQA and the findings set forth herein, the record of proceedings for Metro's decision on the Proposed Project consists of: (a) matters of common knowledge to Metro, including, but not limited to, federal, State, and local laws and regulations; and (b) the following documents which are in the custody of Metro, One Gateway Plaza, Records Management, MS 99-PL-5, Los Angeles, CA 90012:

- Notice of Preparation and other public notices issued by Metro in conjunction with the Proposed Project;
- The Draft EIR dated July 2021, including all associated appendices and documents that were incorporated by reference;

[1] CEQA Guidelines Section 15091 (a) and (b).
[2] Public Resources Code Section 21081 (b).

- All testimony, documentary evidence, and all correspondence submitted in response to the Proposed Project during the scoping meeting or by agencies or members of the public during the public comment period on the Draft EIR, and responses to those comments (Chapter 3, Response to Comments, of the Final EIR);
- The Final EIR dated November 2021, including all associated appendices and documents that were incorporated by reference;
- The MMRP (Chapter 4, Mitigation Monitoring and Reporting Program, of the Final EIR);
- All findings and resolutions adopted by Metro in connection with the Proposed Project, and all documents cited or referred to therein;
- All final technical reports and addenda, studies, memoranda, maps, correspondence, and all planning documents prepared by Metro or the consultants relating to the Proposed Project;
- All documents submitted to Metro by agencies or members of the public in connection with development of the Proposed Project;
- All actions of Metro with respect to the Proposed Project; and
- Any other materials required by PRC Section 21167.6(e) to be in the record of proceedings.

5. ENVIRONMENTAL IMPACTS FOUND TO BE SIGNIFICANT AND UNAVOIDABLE

5.1 AIR QUALITY

The Proposed Project would create a significant impact related to air quality if it were to:

- Conflict with or obstruct implementation of the applicable air quality plan (Operations Only);
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (Operations Only).

Impact. Operation of the Proposed Project would generate new air pollutant emissions related to increased locomotive activity. The results of the air quality emissions analysis determined that implementation of the Proposed Project would increase daily regional emissions from rail propulsion within the South Coast Air Quality Management District (SCAQMD) jurisdiction by a maximum of 4.9 pounds of volatile organic compounds (VOC), 138.1 pounds of nitrogen oxides (NO_X), 231.5 pounds of carbon monoxide (CO), less than a pound of sulfur oxides (SO_X), 5.9 pounds of particulate matter – less than 10 microns (PM_{10}), and 5.7 pounds of particulate matter – less than 2.5 microns ($PM_{2.5}$) and would exceed the regional NO_X threshold. Accordingly, the Proposed Project would conflict with the SCAQMD 2016 Air Quality Management Plan (AQMP) as the Proposed Project would generate emissions of nitrogen oxides (NO_X) that would exceed SCAQMD regional thresholds.

Related to cumulatively considerable net increases in criteria pollutants for which the region is non-attainment, emissions of NO_X contribute to the formation of ozone (O3) in the atmosphere through photochemical reactions and are considered ozone precursors. The South Coast Air Basin (SCAB) is designated nonattainment of the O3 air quality standards at both the federal and

state level. The SCAQMD applies its regional project-level thresholds to its cumulative analysis, and therefore operation of the Proposed Project would result in a significant and unavoidable impact related to cumulatively considerable net increases in Nonattainment pollutants.

Mitigation Measures

No mitigation measures were identified to reduce AVL corridor rail propulsion NO_X emissions. Therefore, this impact is considered significant and unavoidable.

Finding. The application of emerging technologies such as renewable diesel fuel could substantially reduce future emissions. Metrolink is pursuing various emission reduction strategies through separate planning efforts. However, it would be speculative and provide no further informational value to evaluate hypothetical NO_X emissions scenarios based on a presumed implementation schedule, as Metrolink research efforts are still underway. Metro adopts CEQA Finding 3, as identified in Section 4 above and in Section 15091(a) of the CEQA Guidelines.

Reference. Section 3.3, Air Quality, of the Draft EIR, pages 3.3-30 through 3.3-42.

5.2 GREENHOUSE GAS EMISSIONS

The Proposed Project would have a significant impact related to climate change and greenhouse gas (GHG) if it would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (Construction and Operation).

The Proposed Project would change long-term GHG emissions by increasing locomotive emissions in the AVL corridor and removing passenger vehicles from the roadway network. The total net annual GHG emissions increase resulting from the Proposed Project relative to existing conditions would be approximately 11,169.5 metric tons of carbon dioxide equivalent (MTCO2e) after accounting for the vehicle miles traveled (VMT) reductions and the amortized construction emissions. This estimated annual increase represents a conservative approximation as it does not account for any future enhancements to Metrolink's operations that could substantially reduce carbon dioxide (CO2) emissions from rail propulsion. As an example, Metrolink is exploring the potential to rely on renewable diesel fuel for its rail operations, which can achieve up to 80 percent reductions in CO2 emissions depending on the fuel feedstock. However, implementation of future enhancements is uncertain at this time. As the significance threshold has been established as net-zero emissions, the Proposed Project would result in a significant impact related to direct and indirect GHG emissions.

Mitigation Measures

GHG-1 The following control techniques shall be included in project specifications and shall be implemented by the construction contractor.

- Prepare a comprehensive inventory list of all heavy-duty off-road (portable and mobile) equipment (50 horsepower and greater) (i.e., make, model, engine year, horsepower, emission rates) that could be used an aggregate of 40 or more hours throughout the duration of construction to demonstrate how the construction fleet is consistent with the requirements of Metro's Green Construction Policy
- Ensure that all construction equipment is properly tuned and maintained
- Minimize idling time to 5 minutes, whenever feasible, which saves fuel and reduces emissions
- Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary diesel power generators.
- Arrange for appropriate consultations with CARB or SCAQMD to determine registration and permitting requirements prior to equipment operation at the site and obtain CARB Portable Equipment Registration with the State or a local district permit for portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, as applicable

GHG-2 In compliance with Metro's Green Construction Policy, all off-road diesel powered construction equipment greater than 50 horsepower shall comply with USEPA Tier 4 final exhaust emission standards (40 CFR Part 1039). In addition, if not already supplied with a factory-equipped diesel particulate filter, all construction equipment shall be outfitted with best available control technology devices certified by the CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine, as defined by CARB regulations. In addition to the use of Tier 4 equipment, all off-road construction equipment shall be fueled using 100 percent renewable diesel.

Regarding operational activities, no mitigation measures were identified to reduce AVL corridor rail propulsion GHG emissions.

Finding. Metro will continue to cooperate with and encourage Metrolink to implement strategies identified in the Metrolink Climate Action Plan to reduce GHG emissions, including those associated with rail propulsion, to meet the CAP's stated targets and goals. However, Metro cannot guarantee Metrolink will successfully attain the emission reductions necessary to reduce the Proposed Project's GHG emissions to net zero. Mitigation Measures **GHG-1** and **GHG-2** would contribute to reductions in GHG construction emissions. No mitigation measures have been identified to significantly reduce operational emissions, which would be the primary source of impactful emissions. Therefore, impacts associated with the Proposed Project's direct and indirect increase in GHG emissions would remain significant and unavoidable. Metro adopts CEQA Finding 3, as identified in Section 4 above and in Section 15091(a) of the CEQA Guidelines.

Reference. Section 3.8, Greenhouse Gas Emissions, of the Draft EIR, pages 3.8-26 through 3.8-30.

5.3 NOISE AND VIBRATION

The Proposed Project would have a significant impact related to noise and vibration if it would:

- Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies (Construction Only);
- Generate excessive groundborne vibration or groundborne noise levels (Construction Only);

Construction noise predictions for the Balboa Double Track Extension in the City of Los Angeles show there is only one sensitive receiver potentially impacted in the area at 14748 San Fernando Road. Due to the proximity of this receiver to the proposed construction activities, it is predicted this receiver will experience noise exceedances by up to 13 decibels (dBA) during the noisiest construction activities. Construction noise predictions for sensitive receivers near construction activities associated with the Canyon Siding Extension in the City of Santa Clarita show exceedances of the noise limit at several locations, including one commercial building along the western edge of the Canyon Siding Extension site and several residences along the eastern side of the Canyon Siding Extension site. Construction of the Lancaster Terminal Improvements are predicted to result in noise exceedances at two sensitive receiver locations including a commercial building (44738 Sierra Highway) and a homeless shelter (44611 Yucca Avenue).

Regarding construction-related vibration impacts, while the predicted vibration does not reach levels that risk damage to any of the affected receivers described above, vibration levels would exceed the annoyance threshold at one sensitive receiver near the Balboa Double Track Extension site (14748 San Fernando Road), one sensitive receiver near the Canyon Siding Extension site (22840 Soledad Canyon Road), and two sensitive receivers near the Lancaster Terminal Improvements site (44738 Sierra Highway and 44611 Yucca Avenue).

Mitigation Measures

NV-1 Metro/Metrolink's contractor shall develop a Noise Control Plan demonstrating how noise criteria would be achieved during construction. The Noise Control Plan shall be designed to follow Metro requirements, include construction noise control measures, measurements of existing noise, a list of the major pieces of construction equipment that would be used, and predictions of the noise levels at the closest noise-sensitive receivers (residences, hotels, schools, churches, temples, and similar facilities). The Noise Control Plan shall be approved by Metro/Metrolink prior to initiating construction. Where the construction cannot be performed in accordance with the local noise ordinances construction noise standards, the contractor would investigate alternative construction measures that would result in lower sound levels. The noise limits for each jurisdiction are shown in the following table, NV-1 Noise Limits.

NV-1 - Noise Limits

Land Use	Noise Limit – Daytime [1] L_{eq} (dBA)	Noise Limit – Nighttime L_{eq} (dBA)
Any Residential – City of Los Angeles	Ambient +5 dBA	Ambient +5 dBA [2]
Single-Family Residential – Santa Clarita and Lancaster	75 [2]	60 [2, 3]
Multi-Family Residential – Santa Clarita and Lancaster	80 [2]	64 [2, 3]
Commercial	85 [2]	n/a [4]

[1] Daytime is defined as follows:

Los Angeles: 7 am – 9 pm (Mon-Fri), 8 am – 6 pm (Sat)
Santa Clarita: 7 am – 7 pm (Mon – Fri), 8 am – 6 pm (Sat)
Lancaster: 7 am – 8 pm (Mon – Sat)

[2] L.A County Code Limit
[3] Recommended limit if written permission is allowed for work outside of the "Daytime" defined hours
[4] Commercial properties are not typically sensitive at night.

The contractor would conduct noise monitoring to demonstrate compliance with contract noise limits. Noise-reducing methods that may be implemented by the contractor include:

- If nighttime construction is planned, a noise variance may be prepared by the contractor, if required by the jurisdiction, that demonstrates the implementation of control measures to achieve noise levels as close to the nighttime limits of the applicable City of Los Angeles, City of Santa Clarita or City of Lancaster standards as possible.
- Use specialty equipment with enclosed engines, acoustically attenuating shields, and/or high-performance mufflers.
- Locate equipment and staging areas away from noise-sensitive receivers.
- Limit unnecessary idling of equipment.
- Install temporary noise barriers, noise control curtains, and/or noise enclosures. This approach can be particularly effective for stationary noise sources such as

compressors and generators. These methods may not be effective for elevated receivers; blocking line-of-sight is necessary.

- Reroute construction-related truck traffic away from local residential streets and/or sensitive receivers.
- Avoid impact pile driving where possible. Where geological conditions permit, the use of drilled piles or a vibratory pile driver is generally quieter.
- Use electric instead of diesel-powered equipment and hydraulic instead of pneumatic tools.
- Where possible, minimize the use of impact devices such as jackhammers and hoe rams, using concrete crushers and pavement saws instead.
- If all conventional noise control measures cannot achieve the noise levels of the applicable City of Los Angeles, City of Santa Clarita or City of Lancaster standards and unavoidable excessive exceedances of the noise limits are predicted, Metro/Metrolink shall offer to temporarily relocate residents to a hotel. The Noise Control Plan shall define excessive exceedance of the noise limits and shall be approved by Metro/Metrolink.

NV-2 Specific measures to be employed to reduce or mitigate construction vibration impacts shall be developed by the contractor and presented in the form of a Vibration Monitoring Plan as part of the Noise Control Plan. Measurements shall be taken during peak vibration generating construction activities, and the results must be submitted to Metro/Metrolink on a weekly basis.

The following precautionary vibration mitigation strategies should be implemented to minimize the potential for annoyance to occupants in the project area:

- **Alternative Construction Procedures**: If high-vibration construction activities must be performed close to structures, it may be necessary for the contractor to use an alternative procedure that produces lower vibration levels. Examples of high-vibration construction activities include the use of vibratory compaction or hoe rams next to sensitive uses. Alternative procedures include use of non-vibratory compaction in limited areas and a concrete saw in place of a hoe ram to break up pavement.

- **Occupant Temporary Relocation.** When construction or demolition activity must occur very close to the receiver, other less conventional vibration reduction techniques shall be employed. A vibration disturbance coordinator shall be established for affected sensitive occupants regarding vibration annoyance. Vibration levels shall be monitored at the affected uses to determine if vibration levels exceed the vibration annoyance criteria of 0.016 inches per second at residential uses and 0.022 inches per second at commercial uses during construction activity. If construction vibration results in exceedances of the vibration annoyance criteria, occupants shall be temporarily relocated to a hotel during construction times when vibration will be the

greatest and most intrusive. Construction activities in non-residential areas shall be scheduled during non-operational hours of commercial uses.

Finding. Implementation of Mitigation Measure **NV-1** would reduce noise levels through various noise reduction methods such as: use of an acoustically attenuating shield. High performance mufflers, temporary noise barriers, and use of electric instead of diesel-powered equipment. It is anticipated that with implementation of Mitigation Measure **NV-1**, impacts at commercial and residential receivers in Santa Clarita would reduce noise levels below the impact thresholds. However, where larger noise exceedances are predicted, mitigation may not reduce noise below impact thresholds, and impacts would be significant and unavoidable. It is anticipated that implementation of Mitigation Measure **NV-2** would reduce noise impacts at the sensitive receiver commercial building along the western edge of the Canyon Siding Extension site in the City of Santa Clarita to less than significant. Where vibration exceedances are predicted, mitigation may not reduce vibration below impact thresholds, and annoyance impacts may be unavoidable. Where unavoidable impacts are predicted, unconventional mitigation measures shall be considered. Unconventional mitigation may be required for the impacted City of Los Angeles residential receivers during construction of the Balboa Double Track Extension and possibly for the impacted Lancaster receivers during construction of the Lancaster Terminal Improvements. For a residential receiver, an unconventional mitigation measure is to relocate the residents to a hotel during construction phases that are loudest and most intrusive. Metro adopts CEQA Finding 3, as identified in Section 4 above and in Section 15091(a) of the CEQA Guidelines.

Reference. Section 3.10, Noise, of the Draft EIR, pages 3.10-23 through 3.10-35.

6. ENVIRONMENTAL IMPACTS FOUND TO BE LESS THAN SIGNIFICANT WITH MITIGATION

Metro finds that, based upon substantial evidence in the record, as discussed below, the following impacts associated with the Proposed Project are significant, but can be reduced to less-than-significant levels through the proposed mitigation measures listed below and in the MMRP. Therefore, as identified in the EIR, changes or alterations which avoid or substantially lessen the significant environmental effects have been required in, or incorporated into, the Proposed Project.

6.1 TRANSPORTATION

The Proposed Project would create a significant impact related to transportation if it were to:

- Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities (Construction Only);

Impact. Construction would require the import and export of materials and equipment, and the localized movement of equipment on local streets and highways, particularly in the areas surrounding each of the capital improvements. The additional traffic generated during construction would consist of equipment, employee vehicles, and material deliveries in trucks. In addition,

construction would require temporary lane reductions as well as potential street closures where construction work is proposed within existing at-grade crossings, including Golden Oak Road in the City of Santa Clarita and Lancaster Boulevard in the City of Lancaster.

In addition, construction may affect portions of the AVL mainline track as part of the Balboa Double Track Extension or Canyon Siding Extension improvements and there is potential for construction to result in schedule delays, increased dwell times, and overall decreased performance of the AVL as well as Union Pacific Railroad (UPRR) operations. Similarly, Construction activities associated with the Canyon Siding Extension at the Santa Clarita Station may affect passengers due to temporary access impediments, pedestrian detours, and/or temporary shuttle service to nearby stations. Under the Island Platform design option, it is anticipated that the Santa Clarita Station would be out of service for periods of construction and a shuttle service would be provided.

No construction activities are proposed within an existing bicycle facility such that a designated bike route or lane would be affected by construction. Construction activities at the Golden Oak Road crossing would include restriping adjacent to the bicycle facility along Soledad Canyon Road, as well as installation of chicanes; however, regular use of the bicycle facility east of the Golden Oak Road intersection would not be impeded during construction. Pedestrian and bicycle movements through the Golden Oak Road crossing would be restricted during construction in a similar fashion as vehicle traffic. Similarly, construction of the layover facility associated with the Lancaster Terminal improvements would place restrictions on pedestrian and bicycle movements through the Lancaster Boulevard crossing. Access to and from the existing platform at the Santa Clarita Station would be modified to facilitate construction. Appropriate safety provisions would be required to be in place to minimize disruptions to pedestrian ingress and egress. Pedestrian and bicycle access to the Lancaster Terminal would also be temporarily affected under the Island Platform Design Option.

Reference. Section 3.1, Transportation, of the Draft EIR, pages 3.1-21 through 3.1-27. Chapter 2, Corrections and Additions, of the Final EIR, pages 2- 2 through 2-3.

Mitigation Measures

TR-1 During the final engineering phase and at least 30 days prior to the start of construction of each capital improvement, a construction Traffic Management Plan (TMP) shall be prepared by the contractor for each capital improvement including the Balboa Double Track Extension in the City of Los Angeles, the Canyon Siding Extension in the City of Santa Clarita, and the Lancaster Terminal Improvements in the City of Lancaster. Each TMP shall be reviewed and approved by Metro/Metrolink, City of Los Angeles, City of Santa Clarita, City of Lancaster, and Caltrans, where applicable. The TMP shall identify proposed detour routes, as well as construction traffic routes, including haul truck routes, and preferred delivery/haul-out locations and hours. Lane and/or road closures shall be scheduled in consultation with the local public works departments associated with each capital improvement site to minimize disruptions to community traffic. The nearest local fire responders shall be notified, as appropriate, of traffic control plans, and lane and/or road closures as well as detour routes and construction vehicle routes shall be

coordinated with fire responders to minimize disruptions to emergency response routes. The TMP shall identify pedestrian and bicycle circulation and access detours in and around the affected stations as well as temporary bus stop locations and signage, as applicable.

TR–2 During final engineering design and prior to construction, Metro/Metrolink shall establish rail operating agreements and/or memoranda with Metrolink and Union Pacific Railroad (UPRR) to outline mutually agreed upon work windows and contractor operating restrictions. Such agreements shall identify performance objectives such as maximum allowed dwell times and/or on-time performance requirements to be achieved throughout construction, and how construction sequencing and railroad operational protocols would be incorporated into applicable construction documents (plans and specifications) and implemented to maintain the mutually agreed upon performance objectives during construction. Prior to construction, Metro/Metrolink and the construction contractor shall prepare detailed construction phasing plans for each phase of construction that identify appropriate means and methods to maintain mutually agreed upon on-time performance objectives while minimizing impacts on pedestrians and passengers at Santa Clarita Station and/or Lancaster Terminal. Prior to construction, Metro/Metrolink and the construction contractor shall also coordinate with current rail operators to establish temporary construction detours for passengers at the Santa Clarita Station and Lancaster Terminal that correspond to detailed construction phasing plans to minimize impacts on passenger transfer times. Detailed construction phasing plans shall be deemed acceptable by Metrolink prior to commencement of construction activities that could affect regular Metrolink operations.

Throughout the duration of construction, Metro/Metrolink shall solicit UPRR's participation, as-needed, in construction coordination meetings to evaluate the efficiency of the measures in place and Metro/Metrolink and the construction contractor shall implement changes to means and methods during construction to ensure the performance objectives are maintained at an acceptable level throughout construction.

Finding. The potential impacts would be mitigated through the development of Traffic Management Plans and through the establishment of rail operating agreements with operators on the AVL. Metro finds that, through implementation of Mitigation Measures **TR-1** and **TR-2**, these impacts related to transportation would be reduced to a less-than-significant level. Metro adopts CEQA Finding 1, as identified in Section 4 above and in Section 15091(a) of the CEQA Guidelines.

6.2 AESTHETICS

The Proposed Project would create a significant impact related to aesthetics if it were to:

- Have a substantial adverse effect on a scenic vista (Construction and Operations);
- In non-urbanized areas, would the Proposed Project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized

area, would the project conflict with applicable zoning and other regulations governing scenic quality (Construction Only).
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area (Construction Only).

Impact. During construction, the Proposed Project would introduce heavy equipment (e.g., loaders, excavators, scrapers), security fencing, barricade materials, stockpiled building materials, and safety and directional signage into the visual environment of the capital improvement sites. These elements would present visually disruptive elements to views of surrounding hillsides and scenic vistas. At the Balboa Double Track Extension site, less than significant impacts would occur since the construction site would be situated at a lower elevation than the I-5 and thus views of the surrounding hills would not be obstructed or otherwise affected. At the Lancaster Terminal Improvements site, there are no scenic vistas available. However, at the Canyon Siding Extension site, views available to residents north of the Santa Clara River and users of the Santa Clara River Trail would be affected by the presence of construction-related equipment and activities. In addition to affecting this scenic vista, construction activities would temporarily alter the visual character of the hillsides from the perspective of residents north of the Santa Clara River and users of the Santa Clara River Trail.

During operations, portions of the hillside within and adjacent to the rail ROW at the Canyon Siding Extension site would be cut into and soil/rock cut slopes would be installed. From the Santa Clara River Trail and residential neighborhood north of the Santa Clara River, the proposed soil/rock cut slopes would be visible. While views of the Santa Susana River would remain unobstructed and undisturbed, views of the undeveloped hillside would be altered by the proposed soil/rock cut slope if no vegetation is planted on the disturbed slopes. In addition to affecting this scenic vista, after the soil/rock cut slopes are installed, the proposed soil/rock cut slopes would be inconsistent with the visual character of the undeveloped hillsides, and sensitive viewers (i.e., residents north of the Santa Clara River and users of the Santa Clara River Trail) would notice this change.

Regarding lighting and glare, most construction activities would occur during daytime hours; however, if necessary, nighttime construction work could potentially increase nighttime light or glare, temporarily affecting visibility and may result in temporary adverse effects related to spillover lighting and glare.

Reference. Section 3.2, Aesthetics, of the Draft EIR, pages 3.2-24 through 3.2 -37.

Mitigation Measures

AES-1 During construction in the City Santa Clarita, the perimeter of construction areas, including but not limited to, staging and laydown areas, shall be screened to shield views of construction activities from the residential neighborhood north of Santa Clara River and the Santa Clara River Trail.

AES-2 In areas where the slope ratio of the soil/rock cut slopes permits vegetation growth, plants shall be placed on the soil/rock cut slopes. The type of vegetation to be planted shall be consistent with the natural vegetation that is generally associated with the undeveloped hillsides adjacent to the rail right-of-way.

AES-3 During construction, nighttime construction lighting shall be directed toward the interior of the construction area and shielded with temporary construction screening to limit light spillover into adjacent areas.

Finding. The potential impacts would be mitigated by limiting views of most construction activities at the residential neighborhood north of Santa Clara River and the Santa Clara River Trail and by revegetating the hillside upon completion of grading activities at the Canyon Siding Extension Site. To address lighting and glare concerns during nighttime construction activities, potential impacts would be mitigated by limiting construction lighting to the construction areas. For the reasons stated above and as set forth in the EIR, Metro finds that, through implementation Mitigation Measures **AES-1**, **AES-2**, and **AES-3**, these impacts related to aesthetics would be reduced to less-than-significant. Metro adopts CEQA Finding 1, as identified in Section 4 above and in Section 15091(a) of the CEQA Guidelines.

6.3 BIOLOGICAL RESOURCES

The Proposed Project would create a significant impact related to biological resources if it were to:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service (Construction Only);

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service (Construction Only);

- Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means (Construction Only);

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites (Construction Only);

- Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance (Construction Only); and

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan (Construction Only).

Impact. Though the majority of the Proposed Project improvements would be constructed within the existing AVL ROW, some natural areas still exist primarily in open space areas immediately outside of the existing ROW. Such habitats have the potential or are known to support sensitive plant and animal species. Construction activities have the potential to disturb wildlife due to vegetation removal and construction equipment moving through the capital improvement sites. Certain species of birds are protected by the Migratory Birds Treaty Act (MBTA) and California Fish and Game Code from removal or destruction of an active nest (defined as a nest with eggs or young being attended by one or more adults) or direct mortality or injury of individual birds. In addition to birds, removal of vegetation, trees, and construction activities occurring on or around bridge structures such as Interstate 5 (I-5), as proposed under the Balboa Double Track Extension, has the potential to disturb bat species or roosts.

Construction activities have the potential to affect special-status wildlife species by removing habitat, disturbing breeding and/or foraging, or by causing injury and/or mortality. Such special-status species may include coastal California gnatcatcher, least Bell's vireo, Santa Ana sucker, unarmored threespine stickleback, San Diego desert woodrat, coastal whiptail, and western spadefoot toad, among others. While biological surveys conducted at the three capital improvement sites did not identify presence of any special-status species, the potential exists for these species to be present or to utilize areas affected by the Proposed Project for habitat, breeding and foraging.

Additionally, there is potential for special-status plant species and sensitive plan communities to be present on the capital improvement sites or their surroundings. The removal of special-status plant species may cause adverse effects on sensitive natural communities important to the State of California. Similarly, construction activities can contribute dust, construction-related chemicals such as fuels and refuse, and run-off from the construction site can accumulate within water courses or other areas supporting riparian vegetation or other sensitive plant communities, particularly in low-lying areas along edges of the AVL ROW. There is one identified western Joshua tree located approximately 280 feet east of the Lancaster Terminal Station platform at the intersection of Yucca Avenue and Milling Street. On September 22, 2020, the California Fish and Game Commission determined that listing western Joshua tree as threatened under the California Endangered Species Act may be warranted. While no construction activities are anticipated at this location, movement of construction equipment and personnel near the western Joshua tree has the potential to disturb the root zone and soils supporting the tree potentially resulting in impacts to the tree's health and seedbank. Potential impacts would be most likely under any of the proposed Island Platform design options as construction work would occur along the existing station platform, within 250 feet of the tree.

Southern California black walnut trees have been observed along the slopes adjacent to the Balboa Double Track Extension site and coast live oak trees are present along the south side of

the Canyon Siding Extension site near the Santa Clarita Station platform. The California Department of Fish and Wildlife considers both California walnut groves and coast live oak woodland to be sensitive natural communities. Grading activities at both locations have the potential to require removal of these sensitive trees which are part of sensitive natural communities.

There are multiple riverine and freshwater pond features within the vicinity of the capital improvement sites, including one riverine feature that demonstrates indicators of wetland presence adjacent to the Balboa Double Track Extension site. None of these features contain state or federally protected wetlands. However, construction activities have the potential to result in hydrological interruption through the inadvertent disturbance of water features associated with grading activities.

Reference. Section 3.4, Biological Resources, of the Draft EIR, pages 3.4-7 through 3.4-19. Chapter 2.0, Corrections and Additions, of the Final EIR, pages 2-3 through 2-21.

Mitigation Measures

BIO-1 Vegetation removal shall be conducted outside of the bird nesting season (nesting typically occurs between February 1 through September 30) to the extent feasible. If vegetation removal cannot be conducted outside of the nesting season, a Metro-approved qualified bird biologist shall conduct preconstruction surveys to locate active nests within seven days prior to vegetation removal in each area with suitable nesting habitat. If nesting birds are found during preconstruction surveys, an exclusionary buffer (150 feet for passerines and 500 feet for raptors) suitable to prevent nest disturbance shall be established by the biologist. The buffer may be reduced based on species-specific and site-specific conditions as determined by the qualified biologist. This buffer shall be clearly marked in the field by construction personnel under the guidance of the biologist, and construction or vegetation removal shall not be conducted within the buffer until the biologist determines that the young have fledged or the nest is no longer active.

If work occurs on existing bridges with potential nest sites that will be removed or will have modifications to the substructure, these should be conducted between February 1 and September 30. All bird nests shall be removed prior to February 1. Immediately prior to nest removal, a qualified biologist shall inspect each nest for the presence of torpid bats, which are known to use old swallow nests.

Nest removal shall be conducted under the guidance and observation of a qualified biologist. Removal of nests on bridges that are under construction shall be repeated as frequently as necessary to prevent nest completion unless a nest exclusion device has already been installed. Nest removal and exclusion device installation shall be monitored by a qualified biologist. Such exclusion efforts shall be continued to keep the structures free of birds until October or the completion of construction.

A biological monitor shall be present during all ground-disturbing activities to ensure no impacts occur to nesting birds during nesting bird season (mid-March to mid-May), if applicable, as well as to ensure minimal impacts to other plant and animal species.

BIO-2 To avoid impacts to nesting birds, Metro/Metrolink shall submit to the California Department of Fish and Wildlife (CDFW) and United States Fish and Wildlife Service (USFWS) a Nesting Bird Management, Monitoring, and Reporting Plan for review and approval prior to commencement of Proposed Project construction activities during the breeding season (February 1 to August 31, and as early as January 1 for some raptors). The Nesting Bird Management, Monitoring, and Reporting Plan should include the following:

- Nest survey protocols describing the nest survey methodologies, including the following:
    - A management plan describing the methods to be used to avoid nesting birds and their nests, eggs, and chicks;
    - A monitoring and reporting plan detailing the information to be collected for incorporation into a regular Nest Monitoring Log (NML) with sufficient details to enable USFSW and CDFW to monitor Metro/Metrolink's compliance with California Fish and Game Code Sections 3503, 3503.5, 3511, and 3513;
    - A schedule for the submittal (usually weekly) of the NML;
    - Standard buffer widths deemed adequate to avoid or minimize significant project related edge effects (disturbance) on nesting birds and their nests, eggs, and chicks;
    - A detailed explanation of how the buffer widths were determined; and
    - All measures the applicant will implement to preclude birds from utilizing project related structures (i.e., construction equipment, facilities, or materials) for nesting.
- Preconstruction nesting bird surveys shall be completed within 72 hours of construction-related activities and implement appropriate avoidance measures for identified nesting birds. To determine the presence of nesting birds that the project activities may affect, surveys should be conducted beyond the Project Area - 300 feet for passerine birds and 500 feet for raptors. The survey protocols should include a detailed description of methodologies utilized by CDFW-approved avian biologists to search for nests and describe avian behaviors that indicate active nests. The protocols should include but are not limited to the size of the Project Area being surveyed, method of search, and behavior that indicates active nests. Each nest identified in the Project Area should be included in the NML.

  The NMLs should be updated daily and submitted to the CDFW weekly. Since the purpose of the NMLs is to allow the CDFW to track compliance,

the NMLs should include information necessary to allow comparison between nests protected by standard buffer widths recommended for the Proposed Project (300 feet for passerine birds, 500 feet for raptors) and nests whose standard buffer width was reduced by encroachment of project-related activities. The NMLs should provide a summary of each nest identified, including the species, status of the nest, buffer information, and fledge or failure data. The NMLs will allow for tracking the success and failure of the buffers and will provide data on the adequacy of the buffers for certain species. The applicant(s) will rely on its avian biologists to determine the appropriate standard buffer widths for nests within the Project Area to employ based on the sensitivity levels of specific species or guilds of avian species. The determination of the standard buffer widths should be site- and species-/guild-specific and data-driven and not based on generalized assumptions regarding all nesting birds.

- The determination of the buffer widths should consider the following factors:
  - Nesting chronologies;
  - Geographic location;
  - Existing ambient conditions (human activity within line of sight—cars, bikes, pedestrians, dogs, noise);
  - Type and extent of disturbance (e.g., noise levels and quality—punctuated, continual, ground vibrations—blasting-related vibrations proximate to tern colonies are known to make the ground-nesting birds flush the nests);
  - Visibility of disturbance;
  - Duration and timing of disturbance;
  - Influence of other environmental factors; and
  - Species' site-specific level of habituation to the disturbance. Application of the standard buffer widths should avoid the potential for project-related nest abandonment and failure of fledging, and minimize any disturbance to the nesting behavior. If project activities cause or contribute to a bird being flushed from a nest, the buffer must be widened.

BIO-3 Prior to tree removal or demolition activities, Metro/Metrolink shall retain a qualified biologist to conduct a focused survey for bats and potential roosting sites within buildings to be demolished or trees to be removed. The surveys can be conducted by visual identification and can assume presence of hoary and/or pallid bats or the bats can be identified to a species level with the use of a bat echolocation detector such as an "Anabat" unit. If no roosting sites or bats are found, a letter report confirming absence shall be sent to the CDFW and no further mitigation is required. If roosting sites or hoary bats are found, then the following monitoring and exclusion, and habitat replacement measures shall be implemented.

If bats are found roosting outside of nursery season (nursery season typically occurs between May 1 through October 1), then they shall be evicted as described below. If bats are found roosting during the nursery season, then they shall be monitored to determine if the roost site is a maternal roost. This could occur by either visual inspection of the roost bat pups, if possible, or monitoring the roost after the adults leave for the night to listen for bat pups. If the roost is determined to not be a maternal roost, then the bats shall be evicted as described below. Because bat pups cannot leave the roost until they are mature enough, eviction of a maternal roost cannot occur during the nursery season. A 250-foot (or as determined in consultation with CDFW) buffer zone shall be established around the roosting site within which no construction or tree removal shall occur.

Eviction of bats shall be conducted using bat exclusion techniques, developed by Bat Conservation International (BCI) and in consultation with CDFW that allow the bats to exit the roosting site but prevent re-entry to the site. This would include, but not be limited to, the installation of one-way exclusion devices. The devices shall remain in place for seven days and then the exclusion points and any other potential entrances shall be sealed. This work shall be completed by a BCI-recommended exclusion professional. The exclusion of bats shall be timed and carried concurrently with any scheduled bird exclusion activities.

Each roost lost (if any) will be replaced in consultation with the California Department of Fish and Game and may include construction and installation of BCI-approved bat boxes suitable to the bat species and colony size excluded from the original roosting site. Roost replacement will be implemented before bats are excluded from the original roost sites. Once the replacement roosts are constructed and it is confirmed that bats are not present in the original roost site, the structures may be removed or sealed.

BIO-4 A revegetation plan will be developed by a qualified biologist to guide the restoration of native vegetation temporarily or permanently impacted by project implementation.

BIO-5 Limits of disturbance will be staked during construction activities to ensure that impacts to the Project Area are minimized, and staking will stay in place until final site stabilization.

BIO-6 If construction must occur during nighttime hours, lighting that produces a green colored beam with an automatic sensor shall be utilized.

BIO-7 Metro/Metrolink shall retain a qualified biologist with a gnatcatcher survey permit. The qualified biologist shall survey the Project site and adjacent areas to determine presence/absence of gnatcatcher. The qualified biologist shall conduct surveys according to USFWS Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Guidelines. The protocol shall be followed

for all surveys unless otherwise authorized by the USFWS in writing. Gnatcatcher surveys shall be conducted and USFWS notified (per protocol guidance) prior to starting any Project construction and activities within and adjacent to California coastal gnatcatcher habitat.

Where Project construction and activities would occur within and/or adjacent to California coastal gnatcatcher habitat, no work shall occur from February 15 through August 31.

There shall be no clearing, removing, or cutting any California coastal gnatcatcher habitat.

If California coastal gnatcatcher habitat is identified within the construction footprint of any of the capital improvement sites, Metro/Metrolink shall provide compensatory mitigation for loss of any California coastal gnatcatcher habitat at no less than a 2:1. Mitigation lands shall occur within the same watershed, and support California coastal gnatcatcher habitat of similar vegetation composition, density, coverage, and species richness and abundance.

BIO-8 Prior to Proposed Project construction activities at the Balboa Double Track Extension site, a qualified biologist shall conduct protocol surveys for least Bell's vireo. All riparian areas and any other potential least Bell's vireo habitat shall be surveyed at least eight times during the period from April 10 to July 31. Survey results, including negative findings, shall be submitted to CDFW and USFWs within 45 calendar days following the completion of protocol-level surveys. If least Bell's vireo is detected, no construction work, including staging, mobilization, and site preparation, shall occur during the least Bell's vireo nesting season (April 10 to July 31). No habitat supporting least Bell's vireo shall be removed at any time.

If least Bell's vireo is detected and work must occur during the least Bell's vireo nesting season for the duration of the Proposed Project, and/or if habitat supporting least Bell's vireo needs to be removed, Metro/Metrolink shall seek appropriate take authorization under the California Endangered Species Act. Metro/Metrolink shall obtain a permit from California Department of Fish and Wildlife prior to starting any Project construction and activities.

BIO-9 There shall be no impacts on western Joshua trees and seedbank. Access to the Lancaster Terminal Improvements site shall not be allowed from Yucca Avenue/West Milling Street. No activities shall occur within a 250-foot radius of the western Joshua tree to avoid impacts to the tree and potential seedbank. This shall include no site access, vehicle parking, staging areas, refueling, and any activities that may result in ground disturbance. If necessary, Metro/Metrolink shall seek appropriate take authorization under the California Endangered Species Act before starting any construction and activities where impacts to the western Joshua tree and seedbank cannot be avoided.

BIO-10 At least one year prior to starting any Proposed Project construction and activities, a qualified biologist shall conduct season appropriate pre-Project presence/absence fish surveys and habitat at the Balboa Double Track Extension site. Surveys shall be performed by a qualified biologists with an appropriate Scientific Collecting Permit. Also, surveys shall be performed in consultation and coordination with CDFW. If a California Endangered Species Act (CESA) and/or Endangered Species Act (ESA)-listed fish species is detected and impacts on those fish and habitat cannot be avoided, Metro/Metrolink shall consult with CDFW and/or USFWS to obtain necessary permits for take of CESA and/or ESA-listed fish species. Metro/Metrolink shall have a permit from CDFW and/or USFWS prior to starting any Proposed Project construction and activities.

If a Species of Special Concern is detected and impacts on those fish and habitat cannot be avoided, Proposed Project construction and activities shall only occur after fish are relocated in accordance with a CDFW-approved Fish Species Relocation Plan. Metro/Metrolink, in consultation with a qualified biologist shall prepare a species-specific list (or plan) of proper handling and relocation protocols and a map of suitable and safe relocation areas. Wildlife shall be protected, allowed to move away on its own (non-invasive, passive relocation), or relocated to adjacent appropriate habitat within the open space on site or in suitable habitat adjacent to the Proposed Project site (either way, at least 200 feet from the work area). Special status wildlife shall be captured only by a qualified biologist with proper handling permits.

BIO-11 At least one year prior to starting any Proposed Project construction and activities, a CDFW-approved biologist shall conduct focused surveys for unarmored threespine stickleback where there is potential habitat at the Canyon Siding Extension site and any locations within the Canyon Siding Extension site that is hydrologically connected to the Santa Clara River. Surveys shall be performed by a qualified biologist with appropriate Scientific Collecting Permit. Also, surveys shall be performed in consultation and coordination with CDFW. Survey results, including negative findings, shall be provided to CDFW.

Metro/Metrolink shall coordinate with CDFW if unarmored threespine stickleback is found. If unarmored threespine stickleback is found, Metro/Metrolink shall fully avoid all impacts to unarmored threespine stickleback and habitat supporting this California Fully Protected species. No work shall be performed when water is present in tributaries supporting unarmored threespine stickleback. Also, no dewatering of tributaries shall be performed at any time as draining water and reducing water levels could strand, injure, or cause mortality of unarmored threespine stickleback.

BIO-12 During final design and at least one year prior to construction, a qualified biologist with access to the rail right-of-way, shall conduct a field assessment within the

Balboa Double Track Extension and Canyon Siding Extension sites. The assessment shall include an inventory of observable plant and animal species, mapping and characterization of on-site habitats, and an evaluation of each site's potential to support special status species. Presence/absence surveys shall be conducted for special status plants, San Diego desert woodrat, coastal whiptail, western spadefoot toad, arroyo toad, silvery legless lizard, coast horned lizard, as well as small mammals, and bats. Results of the field assessment shall be provided to CDFW. In consultation with CDFW, the qualified biologist shall make recommendations for the avoidance of any identified species including but not limited to additional preconstruction surveys, capture and relocation of terrestrial species by a qualified biologist with proper scientific collection and handling permits, additional restrictions on construction equipment and/or means, and application for appropriate take authorization.

BIO-13 Riparian zones within the three capital improvement sites shall be protected through control of invasive plant species. All construction vehicles and heavy equipment shall be washed (including treads, wheels, and undercarriage) prior to delivery to the Project site to minimize weed seeds entering the construction area via vehicles. Slope stabilization and replanting materials used during construction shall be certified as weed-free. Invasive plant species (such as giant reed) located on the Proposed Project site shall be removed during construction. Invasive plant species shall be removed using best management practices that contain and properly dispose of the species' seeds and plant materials (which may reproduce asexually). Transport of any invasive plant material offsite shall be stored in securely covered containers or vehicles and disposed of at facilities that shall properly eliminate the ability of these materials to grow or colonize new areas.

BIO-14 In areas where riparian features are below upland features, a qualified biologist shall determine if any disturbance would occur in upland areas such that runoff could affect wetlands or riparian habitat. If riparian features are identified in locations that may be subject to construction-relate runoff, the qualified biologist shall identify these areas, clearly delineate sensitive site conditions on-site, and recommend best management practices for the control of runoff including but not limited to:

- Minimizing the extent of disturbed areas and duration of exposure;
- Stabilizing and protecting disturbed areas;
- Keeping runoff velocities low;
- Retaining sediment within the construction area;
- Use of silt fences or straw wattles;
- Temporary soil stabilization;
- Temporary drainage inlet protection;
- Temporary water diversion around the immediate work area; and

- Minimizing debris from construction vehicles on roads providing construction access.

BIO-15 Metro/Metrolink shall provide no less than 2:1 ratio for direct impacts on streams and associated riparian plant community. Metro/Metrolink shall provide additional mitigation for impacts on riparian plant communities that have a State Rarity Ranking of S1 and S2 and an additional ranking of 0.1 and 0.2 to be determined through consultation with California Department of Fish and Wildlife and/or Department of Fish and Wildlife, as applicable.

BIO-16 Metro/Metrolink shall replace no less than three trees for every one southern California black walnut and coast live oak tree that is removed.

BIO-17 Metro/Metrolink shall create or restore no less than one acre for every one acre of impact on a sensitive plant community. Metro/Metrolink shall create or restore no less than two acres for impacts on a sensitive plant community that consists of heritage-sized trees, vigorous trees, or seedlings/saplings. Mitigation shall be provided on lands within the same watershed as the area impacted. The density of trees at the mitigation site shall be at least the same as the density of trees in the habitat that was impacted. The mitigation site shall also provide the same understory species as found in the impacted area.

BIO-18 To prevent inadvertent disturbance to areas outside the limits of grading, all grading shall be monitored by a biologist. A Metro-approved Project Biologist shall be contracted to perform biological monitoring during all grading, clearing, grubbing, trenching, and construction activities.

The following shall be completed:

- The Project Biologist shall perform the monitoring duties before, occasionally during, and after construction. The Project Biologist shall perform the following duties:
  - Attend the preconstruction meeting with the contractor and other key construction personnel prior to clearing, grubbing, or grading to reduce conflict between the timing and location of construction activities and other mitigation requirements (e.g., seasonal surveys for nesting birds);
  - Conduct meetings with the contractor and other key construction personnel describing the importance of restricting work to designated areas prior to clearing, grubbing, or grading;
  - Discuss procedures for minimizing harm to or harassment of wildlife encountered during construction with the contractor and other key construction personnel prior to clearing, grubbing, or grading;
  - Review and/or designate the construction area in the field with the contractor in accordance with the final grading plan prior to clearing, grubbing, or grading;

- Conduct a field review of the staking to be set by the surveyor, designating the limits of all construction activity prior to clearing, grubbing, or grading;
- Be present during initial vegetation clearing, grubbing, and grading;
- Flush special-status species (i.e., avian or other mobile species) from occupied habitat areas immediately prior to brush-clearing and earthmoving activities; and
- To address hydrology impacts, the Project Biologist shall verify that grading plans include a Stormwater Pollution Prevention Plan.

BIO-19 To comply with the state and federal regulations for impacts to "waters of the United States and state," the following agency permits are required, or verification that they are not required shall be obtained.

- The following permit and agreement shall be obtained, or provide evidence from the respective resource agency that such an agreement or permit is not required:
  - A Clean Water Act, Section 401/404 permit issued by the California Regional Water Quality Control Board (RWQCB) and the United States Army Corps of Engineers (USACE) for all project-related disturbances of waters of the United States and/or associated wetlands.
  - A Section 1602 Streambed Alteration Agreement (LSA) issued by the CDFW for all project related disturbances of any streambed.
    - If required, the Streambed Alteration Agreement notification shall include the following information and analyses:
      1. Quantification of the linear feet of streams and area of associated riparian vegetation that would be impacted.
      2. An analysis providing information on whether impacts to streams within the immediate project area could cause impacts downstream where there is hydrologic connectivity;
      3. A hydrological evaluation of the 100, 50, 25, 10, 5, and 2-year frequency storm event for existing and proposed conditions to provide information on how water and sediment is conveyed through the Project site;
      4. A scour analysis demonstrating that stream banks, bed, and channel would not erode and be impaired (e.g., aggrade, incised) as a result of Project activities;
      5. An analysis demonstrating that the Project would not impact stream underflow supporting riparian vegetation;
      6. Identification, analysis, and discussion of potential impacts on streams and associated vegetation as a result of upland Project construction and activities;
      7. Specific activities and actions Metro/Metrolink proposes to take to mitigate for impacts on streams and riparian vegetation,

specifically, actions to control invasive plants and animals and reintroducing native biota;

8. A complete description of routine maintenance activities that may be required for the life of the Project including measures to avoid impacts on streams and riparian vegetation during routine maintenance activities occurring for the life of the Project; and
9. Protocol survey results (see Mitigation Measures **BIO-7** through **BIO-12**), including negative findings, shall be included as part of the LSA Notification. Survey reports shall include information on habitat within the Project site and whether the Project would impact habitat supporting those species.

- Documentation: Metro/Metrolink shall consult each agency to determine if a permit or agreement is required. Upon completion of the agency review of this Proposed Project, the applicant shall provide a copy of the permit(s)/agreement(s), or evidence from each agency that such an agreement or permit is not required for compliance.
- Timing: Prior to approval of any grading and or improvement plans and issuance of any Grading or Construction Permits.
- Monitoring: Metro/Metrolink shall review the permits/agreement for compliance with this condition. Copies of these permits should be implemented on the grading plans.

BIO-20 Preconstruction surveys for protected trees (native trees four inches or more in cumulative diameter, as measured at 4.5 feet above the ground level, that are subject to protection under any relevant tree protection ordinance, shall be conducted by a registered consulting arborist with the American Society of Consulting Arborists at least 120 days prior to construction. The locations and sizes of all protected trees shall be identified prior to construction and overlaid on project footprint maps. The registered consulting arborist shall prepare a Protected Tree Report and shall submit three copies to the relevant local jurisdiction. Any protected trees that must be removed due to project construction shall be replaced at a 2:1 ratio (or up to a 4:1 ratio for protected trees on private property) except when the protected tree is relocated on the same property, the relevant local agency has approved the tree for removal, and the relocation is economically reasonable and favorable to the survival of the tree. Each replacement tree shall be at least a 15-gallon specimen, measuring one inch or more in diameter, one foot above the base, and shall be at least seven feet in height measured from the base.

BIO-21 Protect trees that will possibly receive impacts to the root system by restricting root cuts to the outer region of the roots using a distance formula recommended by the International Society of Arboriculture. Adjust utility relocations to avoid as many tree trunks and root clusters as possible and eliminate direct impacts/removal of trees.

Hand digging the root protection zones will reduce indirect impacts to the root systems.

BIO-22 Provide temporary supplemental irrigation to existing trees during construction, as necessary.

BIO-23 Replace all impacted trees that cannot be saved with trees of the same genus, species, and variety (if applicable) as the tree that is removed. Replacement trees shall be locally sourced from within the same watershed and not from a supplier. Replacement trees shall come from a local native plant nursery that implements Phytophthora/Clean Nursery Stock protocols

BIO-24 Determine proven methods of stabilizing the existing landscape to minimize disturbances beyond the area of cut and fill.

BIO-25 Consider "Geo-cell" type planted retaining wall stabilization structures if they can be planted with native chaparral seed.

BIO-26 Provide compost to hold moisture in the soil. Utilize watering bags for the establishment period.

BIO-27 All tree material, especially tree material infected with pests, pathogens, and diseases, shall be left on site, chipping the material for use as ground cover or mulch.

Findings. The potential impacts would be mitigated by requiring qualified biologists to conduct site surveys including focused/protocol surveys both during final design and prior to construction, restricting vegetation removal activities to outside of bird nesting and bat roosting seasons, monitoring construction activities, obtaining proper permits, and by providing compensatory or replacement mitigation for removed sensitive plant communities. For the reasons stated above and as set forth in the EIR, Metro finds that, through implementation of Mitigation Measures **BIO-1** through **BIO-27**, these impacts related to biological resources would be reduced to a less-than-significant level. Metro adopts CEQA Finding 1, as identified in Section 4 above and in Section 15091(a) of the CEQA Guidelines.

6.4 CULTURAL RESOURCES

The Proposed Project would create a significant impact related to cultural resources if it were to:

- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 (Construction Only).

Impact. The Proposed Project is located within the existing railroad alignment that has been subject to disruption by development activities. Surficial archaeological resources that may have existed have likely been displaced or destroyed. However, there is the possibility that ground-disturbing activities during the excavation of the cut slopes and addition of retaining walls could impact previously undiscovered prehistoric or archaeological resources. Additional

excavation activities at the Santa Clarita Station associated with the Platform to Platform Pedestrian Undercrossing, Island Platform with Platform to Parking Lot Pedestrian Undercrossing, and Island Platform with Pedestrian Undercrossing Design Options present further risk of impact to these resources.

Reference. Section 3.5, Cultural Resources, of the Draft EIR, pages 3.5-12 through 3.5-14. Section 2.0, Corrections and Additions, of the Final EIR, pages 2-21 through 2-24.

Mitigation Measures

CUL-1 Mitigation Measure **CUL-1** pertains specifically to archaeological involvement. The involvement of the Fernandeño Tataviam Band of Mission Indians and Gabrieleno Band of Mission Indians – Kizh Nation (Consulting Tribes) is detailed in Mitigation Measure **TCR-1**. For the purposes of Mitigation Measures **CUL-1** and **TCR-1**, ground disturbing activities include, but are not limited to, excavation, trenching, grading, and drilling.

Prior to issuance of grading permits for each capital improvement site, a qualified archeologist, meeting the Secretary of the Interior's Standards shall be retained to serve as Project Archaeologist to develop and supervise the archaeological monitoring program.

Prior to commencement of any grading activities on site, the Program Archaeologist shall prepare a Cultural Resources Monitoring Plan (CRMP). The CRMP shall be reviewed by the Lead Agency. The Consulting Tribes shall also be provided an opportunity to review and comment on the CRMP. The CRMP should include at a minimum: (1) the roles and responsibilities of the Program Archaeologist, archaeological monitor, and Native American monitor; (2) the definition of an Environmentally Sensitive Area (ESA) around the previously-identified prehistoric resources adjacent to the Canyon Siding Extension capital improvements area, (3) a description of monitoring procedures; (4) a description of the frequency of monitoring (e.g., full-time, part-time, spot checking); (5) a description of what types of resources may be encountered; (6) a description of circumstances that would result in the halting of work at the program site (e.g., what is considered a "significant" archaeological site); (7) a description of procedures to follow when a resource is encountered including curation procedures agreed upon by the Consulting Tribes; (8) communication/notification protocols; and (9) a description of monitoring reporting procedures.

At the commencement of construction, an archaeologist shall provide a Worker Environmental Awareness Program (WEAP) training for all earth moving personnel and their supervisors. WEAP materials shall be developed and distributed to construction personnel over the lifetime of the Program. The Program shall inform personnel of the types of artifacts and features that may be encountered, the procedures to be followed if archaeological materials are unearthed during Program

excavation, contact information for the archaeological and Consulting Tribe personnel, and the regulatory requirements for the protection of archaeological resources including penalties for violations.

The archaeological monitors shall be present for all ground-disturbing activities in native soil (i.e., undisturbed, non-fill sediments) within the Balboa Double Track Extension and Lancaster Terminal Improvements sites. Within the Canyon Siding Extension site, the archaeological monitor shall be present for all ground-disturbing activities within the ESA, including those in disturbed fill sediments During ground-disturbing activities outside of the ESA within the Canyon Siding Extension site, archaeological monitoring shall be limited to ground-disturbing activities within native soil only.

All archaeological monitors, working under the supervision of the Project Archaeologist, shall have construction monitoring experience and be familiar with the types of historical and prehistoric resources that could be encountered. A sufficient number of archaeological monitors shall be present each workday to ensure that simultaneously-occurring ground-disturbing activities receive thorough levels of monitoring coverage. The Project Archaeologist shall have the ability to recommend, with written and photographic justification, the reduction or termination of monitoring efforts to the Lead Agency (i.e., Metro), and should the Lead Agency and the Consulting Tribes concur with this assessment, then monitoring shall be reduced or ceased.

If an inadvertent discovery of archaeological materials is made during project-related construction activities, the archaeological monitors shall have the authority to halt ground-disturbing activities within 50 feet of the resource(s) and an ESA physical demarcation shall be constructed. The Project Archaeologist and Lead Agency shall be notified regarding the discovery. If prehistoric or potential tribal cultural resources (TCRs) are identified within disturbed or native sediments, the Consulting Tribes shall be notified. The procedures outlined in a CRMP shall then be implemented.

Finding. The potential impacts would be mitigated by requiring a qualified archeologist to oversee construction activities. Metro finds that, through implementation of Mitigation Measure **CUL-1**, this impact related to cultural resources would be reduced to a less-than-significant level. Metro adopts CEQA Finding 1, as identified in Section 4 above and in Section 15091(a) of the CEQA Guidelines.

6.5 GEOLOGY, SOILS, AND PALEONTOLOGICAL RESOURCES

The Proposed Project would create a significant impact related to geology, soils, and paleontological resources if it were to:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:

  - Strong seismic ground shaking (Construction Only);
  - Seismic-related ground failure, including liquefaction (Construction Only); and/or
  - Landslides (Construction Only).
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potential result in on- or off-site landslide (Construction Only).
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature (Construction Only).

Impact. The Proposed Project is located in a geologically active region prone to earthquakes, liquefaction, seismically-induced slope failure, and landslides. All three of the capital improvement sites lie within an Alquist-Priolo Earthquake Zone and cross multiple major earthquake fault zones. The Balboa Double Track Extension site is intersected by the San Fernando and Santa Susana faults within the Sierra Madre Fault Zone; to the south of the Balboa Double Track Extension site lies the Mission Hills Fault Zone and Northridge Fault. The Canyon Siding Extension site is intersected by the Honor Rancho section of the San Gabriel Fault Zone. Major earthquake fault zones underlay other portions of the AVL outside of the capital improvement sites, including the Soledad Fault and the Mojave Section of the San Andreas Fault Zone. The Balboa Double Track Extension site and the Canyon Siding Extension site are both within areas that are susceptible to landslides and debris flows.

Regarding paleontological resources, there is potential for excavation activities associated with construction of the capital improvements and design options to unearth or destroy unique paleontological or geologic features and without mitigation, the Proposed Project would result in a significant impact on paleontological resources.

Reference. Section 3.7, Geology and Soils, of the Draft EIR, pages 3.7-26 through 3.7-31 and pages 3.7-35 through 3.7-36.

Mitigation Measures

GEO-1 Prior to the construction of the Proposed Project, Metro/Metrolink shall develop a geotechnical design report to address geological, seismic, and soil-related constraints encountered by the Proposed Project construction. The Proposed Project shall be designed based on the latest versions of local and State building codes and regulations in order to construct seismically-resistant structures that help counteract the adverse effects of ground shaking. During final design, site-specific geotechnical investigations shall be performed at the sites where structures are proposed within liquefaction-prone designated areas. The investigations shall include exploratory soil borings with groundwater measurements. The exploratory soil borings shall be advanced, as a minimum, to the depths required by local and State jurisdictions to conduct liquefaction analyses. Similarly, the investigations shall include earthquake-induced settlement analyses of the dry substrata (i.e., above the groundwater table). The investigations shall also include seismic risk solutions to be incorporated into final design (e.g., deep foundations, ground improvement, remove and replace, among others) for those areas where liquefaction potential may be

experienced. The investigation shall include stability analyses of slopes located within earthquake-induced landslide areas and provide appropriate slope stabilization measures (e.g., retaining walls, slopes with shotcrete faces, slopes re-grading, among others). The geotechnical investigations and design solutions shall follow the "Guidelines for Evaluating and Mitigating Seismic Hazards in California" Special Publication 117A of the California Geologic Service, as well as Metro's Design Criteria and the latest federal and State seismic and environmental requirements.

PAL-1 Full-time paleontological monitoring shall be implemented when Saugus Formation (QTs, Tsr), Pico Formation (Tps, Tp), Towsley Formation (Ttos), or older sedimentary deposits (Qog, Qoa) are impacted. Excavations into artificial fill (af) and younger sedimentary deposits (Qf, Qyfc, Qa, Qg) shall be initially spot-checked during excavations that exceed depths of 5 feet to check for underlying, paleontologically sensitive older sedimentary deposits. If it is determined that only artificial fill (af), modern alluvial fan deposits (Qf), younger alluvial fan deposits (Qyfc), alluvial gravel, and clay of valley areas (Qa), or stream channel deposits (Qg) are impacted, the monitoring program may be reduced or suspended.

PAL-2 Prior to construction, a Paleontological Resources Impact Mitigation Program (PRIMP) shall be prepared that provides detailed recommended monitoring locations; a description of a paleontological resources worker environmental awareness program to inform construction personnel of the potential for fossil discoveries and of the types of fossils that may be encountered; detailed procedures for monitoring, fossil recovery, laboratory analysis, and museum curation; and notification procedures in the event of a fossil discovery by a paleontological monitor or other project personnel. A curation agreement from the NHMLA, or another accredited repository, shall also be obtained prior to excavation in the event that paleontological resources are discovered during the construction phase of the Proposed Project.

Finding. The potential impacts related to strong seismic ground shaking, liquefaction, and landslides would be mitigated by designing the Proposed Project elements according to State and local building codes. Potential impacts to paleontological resources would be mitigated by requiring a qualified paleontologist to oversee Proposed Project construction activities. For the reasons stated above and as set forth in the EIR, Metro finds that, through implementation of Mitigation Measures **GEO-1**, **PAL-1**, and **PAL-2** these impacts related to geology, soils, and paleontological resources would be reduced to a less-than-significant level. Metro adopts CEQA Finding 1, as identified in Section 4 above and in Section 15091(a) of the CEQA Guidelines.

6.6 HAZARDS AND HAZARDOUS MATERIALS

The Proposed Project would create a significant impact related to hazards and hazardous materials if it were to:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials (Construction Only);
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment (Construction Only);
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school (Construction Only);
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment (Construction Only).

Impact. Construction activities would use and generate hazardous waste. Hazardous materials would include, but are not limited to vehicle fuels, asphalt/concrete, lubricants, epoxy resins, drilling fluids, and paints. The use of these materials, including their routine transport and disposal, carries the potential for an accidental release into the local environment. Although typical construction management practices limit and often eliminate the risk of such accidental releases, the extent and duration of the Proposed Project construction presents a possible risk to the environment, through the routine transport of hazardous materials.

There is potential for contaminated soil and groundwater, aerially deposited lead, presence of lead-based paints, presence of asbestos containing materials, and various historic uses that handled or stored hazardous materials within the vicinity of the capital improvement sites. Disturbances of soil, soil vapor, or groundwater during construction at known, potential, or historical concern sites would potentially result in the upset of hazardous materials into the environment and presenting potential for significant impacts. Disturbance of these concern sites could create a health risk to construction workers and nearby residents or the public during construction. In addition, the Balboa Double Track Extension site is located within a known Methane Zone and Methane Buffer Zone. There is potential for ground disturbing activities such as track removal and grading to result in the release of methane vapor presenting potential risks of explosion. Notably, portions of the Canyon Siding Extension site are located within the historic boundaries of the Whitaker-Bermite Facility, which is included in the Cortese List of hazardous materials sites compiled pursuant to Government Code Section 65962.5. There is higher potential for soil contamination and hazardous material release impacts during construction at this site.

Reference. Section 3.9, Hazards and Hazardous Materials, of the Draft EIR, pages 3.9-18 through 3.9-25.

Mitigation Measures

HAZ-1 Prior to the start of construction, the contractor shall provide Metro/Metrolink with an industrial waste management plan and/or a waste and hazardous materials management plan, such as a plan defined in Title 19 California Code of Regulations or a Spill Prevention, Control, and Countermeasure Plan. These plans shall be completed to Metro/Metrolink contractor specifications and will identify the responsible parties and outline procedures for hazardous waste and hazardous materials worker training, certifications, handling, storage, and transport during construction of the Proposed Project. The plan shall specify how the contractor will handle and manage wastes onsite, including:

- Prescribe BMPs to follow to prevent hazardous material releases and cleanup of any hazardous material releases that may occur
- Comply with the SWRCB Construction CWA Section 402 General Permit conditions and requirements for transport, labeling, containment, cover, and other BMPs for storage of hazardous materials during construction.

During construction, the contractor shall comply with applicable federal and state regulations that consider hazardous material handling and storage practices, such as RCRA, CERCLA, the Hazardous Materials Release Response Plans and Inventory Law, and the Hazardous Waste Control Act.

HAZ-2 Prior to the start of construction, the construction contractor shall retain a qualified environmental consultant to prepare a Soil Management Plan, Soil Reuse Management Plan, Groundwater Management Plan, and/or Soil, Soil Vapor, and Groundwater Management Plan. These plans shall be completed to Metro/Metrolink's contractor specifications and submitted to Metro/Metrolink prior to any ground-disturbing activities for the Proposed Project. Alternatively, soil, soil vapor, and/or groundwater plans shall be prepared separately and then compiled together as a Soil, Soil Vapor, and Groundwater Management Plan.

HAZ-3 Consistent with Metro's standard practice, prior to the start of construction, the contractor shall provide Phase I Environmental Site Assessments (ESAs) in accordance with standard American Society for Testing and Materials (ASTM) methodologies, to assess the land use history of each parcel that would be acquired for the Proposed Project. The determination of parcels that require a Phase II ESA (i.e., soil, groundwater, soil vapor subsurface investigations) shall be evaluated after the Phase I ESAs have been completed and would be based on the results of the Phase I ESAs. Specifically, if the Phase I ESAs identify suspected contamination in the soil, soil vapor, or groundwater; a Phase II ESA shall be conducted to determine whether the suspect contamination had resulted in soil, groundwater, or soil vapor contamination exceeding regulatory action levels.

If the Phase II ESA concludes that the site is impacted, remediation or corrective action (e.g., removal of contamination, in-situ treatment, capping) shall be conducted prior to or during construction under the oversight of federal, state, and/or local agencies (e.g., United States Environmental Protection Agency (USEPA), Department of Toxic Substances Control (DTSC), Regional Water Quality Control Board (RWQCB), Los Angeles County) and in full compliance with current and applicable federal and state laws and regulations. Additionally, Voluntary Cleanup Agreements shall be used for parcels where remediation or long-term monitoring is necessary.

HAZ-4 The Balboa Double Track Extension shall be designed in accordance with the City of Los Angeles Municipal Code, Chapter IX, Building Regulations, Article 1, Division 71, Methane Seepage Regulations, as amended by the City of Los Angeles Methane Ordinance (No. 175790). Specific requirements shall be determined according to actual methane levels and pressures measured along the Affected Area, and the specific requirements shall be incorporated into the design and construction.

Finding. The potential impacts would be mitigated by ensuring that any accidental spills or releases of hazardous materials are managed properly, hazardous wastes or known contaminated materials are disposed of properly, unknown environmental concerns are identified prior to ground disturbance, and concerns related to the presence of methane gas in the Balboa Double Track Extension site are addressed through design solutions in accordance with the City of Los Angeles requirements. For the reasons stated above and as set forth in the EIR, Metro finds that, through implementation of Mitigation Measure **HAZ-1** through **HAZ-4**, these impacts related to hazards and hazardous materials would be reduced to a less-than-significant level. Metro adopts CEQA Finding 1, as identified in Section 4 above and in Section 15091(a) of the CEQA Guidelines.

6.7 TRIBAL CULTURAL RESOURCES

The Proposed Project would create a significant impact related to tribal cultural resources if it were to:

- Cause a substantial adverse change in the significance of a tribal cultural resource, listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k) (Construction Only); and/or
- Cause a substantial adverse change in the significance of a tribal cultural resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe (Construction Only).

Impact. The Project corridor was identified by Mr. Andrew Salas of the Kizh Nation as a Tribal Cultural Resource (TCR); however, the TCR has not been listed or determined eligible for the

California Register of Historic Resources (CRHR) or any local register. Additionally, it is assumed that an abundance of materials and artifacts are buried in the Project Area, including unmarked burials along the entire AVL corridor based on ethnographic accounts documenting the traditional ancestral territory of the Fernandeño Tataviam Band of Mission Indians. The Proposed Project is located within an urbanized area and has been subject to disruption by development activities associated with the railroad and surrounding urban uses. As a result of previous development activities, surficial archaeological resources and any above-ground tribal cultural resources that may have existed have likely been displaced or destroyed. Considering the stated sensitivity of the Project Area with regard to the assumed presence of materials, artifacts, and unmarked burials along the AVL corridor, there is the possibility that ground-disturbing activities could impact previously undiscovered buried tribal cultural resources of historical significance.

Reference. Section 3.11, Tribal Cultural Resources, of the Draft EIR, pages 3.11-8 through 3.11-10. Section 2.0, Corrections and Additions, of the Final EIR, pages 2-24 through 2-28.

Mitigation Measures

TCR-1 Mitigation Measure **CUL-1** pertains specifically to archaeological involvement. The involvement of the Fernandeño Tataviam Band of Mission Indians and Gabrieleno Band of Mission Indians – Kizh Nation (Consulting Tribes) is detailed in Mitigation Measure **TCR-1**. For the purposes of the Mitigation Measures **CUL-1** and **TCR-1**, ground disturbing activities include, but are not limited to, excavation, trenching, grading, and drilling.

In addition to the Program Archaeologist and archaeological monitor (See Mitigation Measure **CUL-1**), a Native American monitor from the Consulting Tribes shall be retained to monitor earth-moving activities. Native American monitoring shall be conducted on a rotational basis between the Consulting Tribes (Fernandeño Tataviam Band of Mission Indians and Gabrieleno Band of Mission Indians – Kizh Nation) during these construction activities, and attendance is ultimately at the discretion of the Consulting Tribes.

Prior to commencement of any grading activities on site, the Program Archaeologist shall prepare a Cultural Resources Monitoring Plan (CRMP). The CRMP shall be reviewed by the Lead Agency and Consulting Tribes. The CRMP should include at a minimum: (1) the roles and responsibilities of the Program Archaeologist, archaeological monitor, and Native American monitor; (2) the definition of an Environmentally Sensitive Area (ESA) around the previously-identified prehistoric resources adjacent to the Canyon Siding Extension capital improvements area, (3) a description of monitoring procedures; (4) a description of the frequency of monitoring (e.g., full-time, part-time, spot checking); (5) a description of what types of resources may be encountered; (6) a description of circumstances that would result in the halting of work at the program site (e.g., what is considered a “significant” archaeological site); (7) a description of

procedures to follow when a resource is encountered including curation procedures agreed upon by the Consulting Tribes; (9) communication/notification protocols; and (8) a description of monitoring reporting procedures.

At the commencement of construction, an archaeologist and Native American representatives from the Consulting Tribes shall provide a Worker Environmental Awareness Program (WEAP) training for all earth moving personnel and their supervisors. WEAP materials shall be developed and distributed to construction personnel over the lifetime of the Program. The Program shall inform personnel of the types of artifacts and features that may be encountered, the procedures to be followed if archaeological materials are unearthed during program excavation, contact information for the archaeological and Consulting Tribe personnel, and the regulatory requirements for the protection of archaeological resources including penalties for violations.

The Native American monitor shall be present for all ground-disturbing activities in native soil (i.e., undisturbed, non-fill sediments) within the Balboa Double Track Extension and Lancaster Terminal Improvements sites. Within the Canyon Siding Extension site, the Native American monitor shall be present for all ground-disturbing activities within the ESA, including those in disturbed fill sediments. During ground-disturbing activities outside of the ESA within the Canyon Siding Extension site, Native American monitoring shall be limited to ground-disturbing activities within native soil only. A sufficient number of Native American monitors shall be present each workday to ensure that simultaneously occurring ground disturbing activities receive thorough levels of monitoring coverage.

If an inadvertent discovery of archaeological materials is made during program-related construction activities, the Native American monitor shall have the authority to halt ground disturbing activities within 50 feet of the resource(s) and an ESA physical demarcation shall be constructed. The Program Archaeologist, Lead Agency, and Consulting Tribes shall be notified regarding the discovery. The procedures outlined in CRMP shall then be implemented.

Finding. The potential impacts would be mitigated by ensuring that tribal monitors from Consulting Tribes monitor ground disturbing activities associated with construction of the Proposed Project and that any tribal cultural resources discovered during construction of the Proposed Project would be properly assessed and preserved. For the reasons stated above and as set forth in the EIR, Metro finds that, through implementation of Mitigation Measure **TCR-1**, this impact related to tribal cultural resources would be reduced to a less-than-significant level. Metro adopts CEQA Finding 1, as identified in Section 4 above and in Section 15091(a) of the CEQA Guidelines.

6.8 HYDROLOGY AND WATER QUALITY

The Proposed Project would create a significant impact related to hydrology and water quality if it were to:

- Violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or groundwater quality (Construction Only).
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would (Construction Only):
    - Result in substantial erosion or siltation on- or off-site;
    - Substantially increase the rate or amount of surface runoff in a matter which would result in flooding on- or off-site;
    - Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
    - Impede or redirect flood flows.

- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan (Operations Only).

Impact. Construction of the Proposed Project could result in temporary changes in grades and drainage patterns, discharge of pollutants into surface waters, exposure of soils to stormwater and erosive conditions. In addition, temporary dewatering may be required. Similarly, there is potential for contaminated groundwater to be encountered during construction of the Proposed Project, in particular, the Canyon Siding Extension.

Operations associated with the Lancaster Terminal Improvements would include vehicle wash facilities that would discharge wastewater into the local sewer system. If vehicle cleaning operations are not managed properly, there is potential for a significant impact related to water quality standards and waste discharge requirements. The proposed layover facility is subject to the IGP (Order No. 2014-0057-DWQ), which regulates industrial discharges into municipal sewer systems.

Reference. Section 3.12, Hydrology and Water Quality, of the Draft EIR, pages 3.12-11 through 3.12-17.

Mitigation Measures

WQ-1 During construction, Metro/Metrolink shall prepare a Stormwater Pollution Prevention Plan (SWPPP) in compliance with the provisions of the National Pollution Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (CGP) (Order No. 2009-0009-DWQ, NPDES No. CAS000002) and any subsequent amendments (Order No. 2010-0014-DWQ and Order No. 2012-0006-DWQ), as

they relate to Proposed Project construction activities within the Balboa Double Track Extension, Canyon Siding Extension, and/or Lancaster Terminal Improvements sites. Construction activities shall not commence until a waste discharger identification number is received from the Stormwater Multiple Application and Report Tracking System. The contractor for each capital improvement site shall implement all required aspects of the SWPPP during Proposed Project construction.

WQ-2 Metro/Metrolink shall comply with the NPDES Waste Discharge Requirements for MS4 Discharges within the Coastal Watersheds of Los Angeles County (Order No. 2012-0175, NPDES No. CAS004001), effective December 28, 2012 (known as the Phase I Permit) and NPDES General Permit for Storm Water Discharges From Small Municipal Separate Storm Sewer Systems (NPDES No. CAS000004), as applicable. This post-construction requirement shall apply to each of the capital improvement sites. Metro/Metrolink shall prepare a final Low Impact Design (LID) report in accordance with the applicable local LID Manual. These include the City of Los Angeles Planning and Land Development Handbook for Low Impact Development, May 9, 2016 and the County of Los Angeles Department of Public Works Low Impact Development Standards Manual, February 2014. The LID report shall identify the required BMPs to be in place prior to project operation and maintenance.

WQ-3 In the event that groundwater is encountered during excavation, the construction contractor for each capital improvement site where groundwater is present shall comply with the provisions of the General Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties (Order No. R4-2013-0095, NPDES Permit No. CAG994004), effective July 6, 2013 (known as the Dewatering Permit) or NPDES General Permit for Limited Threat Discharges to Surface Waters (Order No. R6T-2014-009, NPDES Permit No. CAG996001), as they relate to discharge of non-stormwater dewatering wastes. The two options to discharge shall be to the local storm drain system and/or to the sanitary sewer system, and the contractor shall obtain a permit from the RWQCB and/or the City of Los Angeles, respectively.

WQ-4 In the event that groundwater is encountered during excavation associated with Canyon Siding Extension, the contractor shall comply with the provisions of the General Waste Discharge Requirements for Discharges of Treated Groundwater from Investigation and/or Cleanup of VOC Contaminated Sites to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties (Order No. R4-2013-0043, NPDES Permit No. CAG914001), effective April 7, 2013 (known as the Dewatering Permit for contaminated sites), for discharge of non-stormwater dewatering wastes from contaminated sites impacted during construction. The two options to discharge shall be to the local storm drain system and/or to the sanitary

sewer system, and the contractor shall require a permit from the RWQCB and/or the City of Santa Clarita, respectively.

WQ-5 Metro/Metrolink shall comply with the NPDES General Permit for Stormwater Discharges Associated with Industrial Activities (IGP; Order No. 2014-0057-DWQ, NPDES No. CAS000001) for demolished, relocated, or new industrial-related properties impacted by the project. This shall include preparation of industrial SWPPP(s), as applicable.

Finding. The potential impacts would be mitigated by ensuring that proper permits and associated stormwater pollution prevention plans are prepared and acquired prior to construction. For the reasons stated above and as set forth in the EIR, Metro finds that, through implementation of Mitigation Measures **WQ-1** through **WQ-5**, these impacts related to hydrology and water quality would be reduced to a less-than-significant level. Metro adopts CEQA Finding 1, as identified in Section 4 above and in Section 15091(a) of the CEQA Guidelines.

7. ENVIRONMENTAL IMPACTS FOUND TO BE LESS THAN SIGNIFICANT OR NO IMPACT

CEQA does not require findings to be adopted for impacts that are determined to be less than significant or no impact. Table 7-1 identifies the environmental impacts found to be less than significant or no impact.

Table 7-1. Environmental Impacts Found to be Less than Significant or No Impact.

Environmental Resource Area	Appendix G Threshold	Impact Determination
Transportation	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.	Operation – Less-than-Significant Impact
	Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)	Construction – Less-than-Significant Impact Operations – Less-than-Significant Impact
	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	Construction – Less-than-Significant Impact Operations – Less-than-Significant Impact
	Result in inadequate emergency access	Construction – Less-than-Significant Impact Operations – Less-than-Significant Impact
Aesthetics	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	Construction – Less-than-Significant Impact Operations – Less-than-Significant Impact
	In non-urbanized areas, would the Proposed Project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality	Operations – Less-than-Significant Impact
	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area	Operations – Less-than-Significant Impact
Air Quality	Conflict with or obstruct implementation of the applicable air quality plan	Construction – Less-than-Significant Impact
	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.	Construction – Less-than-Significant Impact
	Expose sensitive receptors to substantial pollutant concentrations.	Construction – Less-than-Significant Impact Operations – Less-than-Significant Impact
	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people	Construction – Less-than-Significant Impact Operations – Less-than-Significant Impact

Environmental Resource Area	Appendix G Threshold	Impact Determination
Biological Resources	A substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service	Operations – Less-than-Significant Impact
	A substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service	Operations – Less-than-Significant Impact
	A substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means	Operations - No Impact
	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites	Operations – Less-than-Significant Impact
	Conflict with any local policies or ordinance protecting biological resources, such as tree preservation policy or ordinance	Operations – Less-than-Significant Impact
	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan	Construction – Less-than-Significant Impact Operations – No Impact
Cultural Resources	Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5	Construction –No Impact Operations – No Impact
	Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5	Operations – No Impact
	Disturb any human remains, including those interred outside of dedicated cemeteries	Construction –Less-than-Significant Impact Operations – No Impact
Energy	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation	Construction – Less-than-Significant Impact Operations – Less-than-Significant Impact
	Conflict with or obstruct a State or local plan for renewable energy or energy efficiency	Construction – Less-than-Significant Impact Operations – No Impact

Environmental Resource Area	Appendix G Threshold	Impact Determination
Geology, Soils, and Paleontological Resources	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving: i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to division of Mines and Geology Special Publication 42 ii. Strong seismic ground shaking. iii. Seismic-related ground failure, including liquefaction. iv. Landslides.	Operations – Less-than-Significant Impact
	Result in substantial soil erosion or the loss of topsoil	Operations – No Impact
	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse	Operations – Less-than-Significant Impact
	Be located on expansive soil as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property	Operations – Less-than-Significant Impact
	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater	Construction No Impact Operations – No Impact
	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature	Operations – No Impact
Greenhouse Gas Emissions	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment	Construction – Less-than-Significant Impact
	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases	Construction – Less-than-Significant Impact Operations – Less-than-Significant Impact

Environmental Resource Area	Appendix G Threshold	Impact Determination
Hazards and Hazardous Materials	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials	Operations – Less-than-Significant Impact
	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment	Operations – Less-than-Significant Impact
	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school	Construction – Less-than-Significant Impact Operations – No Impact
	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment	Operations – Less-than-Significant Impact
	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Proposed Project result in a safety hazard or excessive noise for people residing or working in the project area	Construction – No Impact Operations – No Impact
	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan	Construction – Less-than-Significant Impact Operations – Less-than-Significant Impact
Noise and Vibration	Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies	Operations – Less-than-Significant Impact
	Result in excessive ground-borne vibration or ground-borne noise levels	Operations – Less-than-Significant Impact
	For a project located within the vicinity of a private airstrip or an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels	Construction – No Impact Operations – No Impact

Environmental Resource Area	Appendix G Threshold	Impact Determination
Hydrology and Water Quality	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	Construction – Less-than-Significant Impact Operations – Less-than-Significant Impact
	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: • Result in substantial erosion or siltation on- or off-site; • Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; • Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or • Impede or redirect flood flows?	Operations – Less-than-Significant Impact
	Be located in a flood hazard, tsunami, or seiche zones, thus risk release of pollutants due to project inundation	Construction – Less-than-Significant Impact Operations – Less-than-Significant Impact
Agriculture and Forestry Resources	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use Conflict with existing zoning for agricultural use, or a Williamson Act contract Conflict with existing zoning for, or cause rezoning of, Forest Land (as defined in PRC Section (12220(g)), Timberland (as defined by PRC 4526), or timberland-zoned Timberland Production (as defined by CGC Section 51104(g)) Result in the loss of forest land or conversion of forest land to non-forest use Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of Forest Land to non-forest use	Construction – No Impact Operations – No Impact
Land Use and Planning	Physically divide an established community Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect	Construction – No Impact Operations – No Impact

Environmental Resource Area	Appendix G Threshold	Impact Determination
Mineral Resources	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.	Construction – No Impact Operations – No Impact
Population and Housing	Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.	Construction – No Impact Operations – No Impact
Public Services	Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services: i. Fire Protection ii. Police Protection iii. Schools iv. Parks v. Other Public Facilities	Construction – No Impact Operations – No Impact
Recreation	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	Construction – No Impact Operations – No Impact

Environmental Resource Area	Appendix G Threshold	Impact Determination
Utilities and Service Systems	Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects	Construction – Less-than-significant Impact Operations – No Impact
	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years	Construction – No Impact Operations – Less-than-significant Impact
	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals Comply with federal, state, and local management and reduction statutes and regulations related to solid waste	Construction – No Impact Operations – No Impact
Wildfire	Substantially impair an adopted emergency response plan or emergency evacuation plan Exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes	Construction – No Impact Operations – No Impact

8. FINDINGS REGARDING ALTERNATIVES

Section 15126.6(a) of the CEQA Guidelines requires the discussion of "a reasonable range of alternatives to a project, or the location of a project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives."

The following alternatives to the Proposed Project were considered during preparation of the EIR:

- No Project Alternative
- Hourly Service-Only Alternative

8.1 ALTERNATIVE 1 - NO PROJECT ALTERNATIVE

The No Project Alternative would include the Brighton to Roxford Double Track Project in the Cities of Burbank, Los Angeles and San Ferando and the Link US Project in addition to other transportation and land use projects listed in Chapter 5, Cumulative Impact Analysis, of the Draft EIR. The Brighton to Roxford Double Track Project would provide nine miles of track through the single-track portion of Metro's Valley Subdivision Railway, which includes the AVL. The Brighton to Roxford Double Track Project would provide capacity and safety improvements along this portion of the AVL and allow for more efficient and reliable Metrolink operations. The Link US Project would reconfigure the existing Union Station rail yard and will potentially allow regional one-seat trips from Ventura County and the Antelope Valley, to San Bernardino and San Diego counties. This would provide operational benefits for AVL trains arriving at LAUS. The Link US Project will also provide capacity to meet demand from the future California High-Speed Rail project.

Under the No Project Alternative, existing (pre-COVID 19) Metrolink service would be maintained with some improvement in reliability and operational flexibility afforded by other capital improvements along the AVL such as the Brighton to Roxford Double Track Project. Metrolink timetables, particularly off-peak service may be adjusted in the future based upon changes in demand and operational flexibility afforded by related projects on the corridor. The planned late-night trips on Friday and Saturday would be added to the AVL schedule consistent with Phase 1 of the Metro Board-approved Motion (File #2019-0571) supporting funding and planning for the Proposed Project. No construction activities would be required to implement these late-night trips. Peak service improvements would be limited to providing longer train consists (i.e., five-car consists rather than four-car consists) to alleviate crowding on existing trains; however, peak-hour crowding has not been an issue historically, and the degree to which existing peak-hour train consists could be lengthened is limited by existing station platform lengths, storage track capacity, and rolling stock limitations.

8.1.1 Finding

While the impacts associated with the Proposed Project would be avoided under the No Project Alternative, Metro finds that the No Project Alternative is infeasible because it would fail to meet

any of the project objectives. Metro adopts CEQA Finding 3, as identified in Section 4 above and in Section 15091(a) of the CEQA Guidelines.

8.1.2 Facts in Support of Finding

Aesthetics

The No Project Alternative would not include physical changes to the existing AVL or its surroundings. This alternative would not result in permanent alterations to existing hillsides or other visual resources and existing views of and around the AVL would remain unaffected. Existing station platforms including the Santa Clarita Station and Lancaster Terminal would remain unchanged with no potential to affect views or scenic resources along the AVL. Impacts would be less than those of the Proposed Project, which were determined to be less-than-significant with mitigation measures.

Air Quality

The No Project Alternative includes the existing transportation network and land use developments that generate air pollutant emissions. Without the Proposed Project, mobile sources and land uses would continue to generate pollution. However, there is no specific action associated with the No Project Alternative that would cause an impact. Modest reduction in passenger vehicle use could be realized under the No Project Alternative as the AVL would continue to provide commuter rail service with some capacity to meet growing ridership. There would be no potential to conflict with or obstruct air quality plans, result in a cumulatively considerable net increase of a criteria pollutant, expose sensitive receptors to substantial pollutant concentrations, or result in other emissions such as odors that could adversely affect a substantial number of people. The No Project Alternative would not result in a significant impact related to construction or operational activities. No construction impacts would result from the No Project Alternative and while the alternative would not have the same level of improvement to regional mobile source emissions, the ongoing operation of the AVL contributes to air quality improvements consistent with regional and local air quality plans. Since Metrolink service would not increase under the No Project Alternative impacts associated with diesel locomotive, emissions would be less than those of the Proposed Project, which were determined to be significant and unavoidable due to an exceedance of SCAQMD regional thresholds for NO_X. No impact on air quality would result from the No Project Alternative.

Biological Resources

The No Project Alternative would not include physical changes to the existing AVL or its surroundings that could affect biological resources. This alternative would not result in the removal of trees or other vegetation in the open space and undeveloped areas either within the AVL ROW or its surroundings. The No Project Alternative would not impact terrestrial habitat, riparian habitat, or wetlands. This alternative would not impact candidate, sensitive, or special status species or impede the movement of wildlife. There would be no potential to conflict with policies or ordinances protecting biological resources or conflict with conservation plans. The No Project Alternative would not result in a significant impact related to biological resources. Impacts would be less than or equal to those of the Proposed Project, which were determined to be less than significant with mitigation for construction activities and no impact for operational activities.

Cultural Resources
The No Project Alternative would not include physical changes to the existing AVL or its surroundings that could affect cultural resources. This alternative would not result in ground disturbance, acquisition, and/or modification of cultural resources along the AVL. There would be no potential for construction or operational activities to disturb historic or archaeological resources. The No Project Alternative would not result in a significant impact related to cultural resources. This impact would be less than what was identified for the Proposed Project, which was determined to be less-than-significant with mitigation.

Energy
The No Project Alternative includes the existing transportation network and land use developments that consume transportation fuels, electricity, and natural gas. Without the Proposed Project, mobile sources and land uses would continue to use transportation fuels at existing levels. However, there is no specific action associated with the No Project Alternative that would cause an impact. There would be no potential to create impacts related to fuel consumption or conflicts with renewable energy or energy efficiency plans. The No Project Alternative would not result in a significant impact related to construction or operational activities. Construction impacts would be less than those of the Proposed Project, which were determined to be less than significant for construction.

A consequence of the No Project Alternative would be that Metro would not be able to improve regional transit ridership to the degree it would improve under the Proposed Project. It is anticipated that expansion of Metrolink service along the AVL would reduce regional vehicle miles traveled by making Metrolink service a more attractive mode of transportation through the provision of more frequent and reliable service. While existing AVL service would be able to accommodate some future regional growth in ridership, the potential VMT reduction associated with the No Project Alternative would be minimal as only one additional late-night train on Fridays and Saturdays would be added to AVL service under the No Project Alternative. The benefit of improved ridership and associated VMT reduction would not be fully realized under the No Project Alternative.

Geology, Soils, and Paleontological Resources
The No Project Alternative would not include physical changes to the existing AVL or its surroundings that could affect geology and soils. This alternative would not result in ground disturbance, acquisition, and/or modification of geology and soils from construction or operations of the Proposed Project. There would be no potential for construction or operational activities to result in impacts from seismic events, landslides, erosion, lateral spreading, subsidence, liquefaction, collapse, alternative wastewater systems, or paleontological resources beyond potential seismic risks that already exist. The No Project Alternative would not result in a significant impact related to geology and soils or paleontological resources. This impact would be less than what was identified for the Proposed Project, which was determined to be less-than-significant for construction activities and less-than-significant with mitigation for operational activities.

Greenhouse Gas Emissions

The No Project Alternative includes the existing transportation network and land use developments that generate GHG emissions. Without the Proposed Project, mobile sources and land uses would continue to generate pollution. However, there is no specific action associated with the No Project Alternative that would cause an impact. There would be no potential to generate significant GHG emissions or conflict with GHG reduction plans. Metrolink would continue to improve its systemwide GHG emissions through the GHG reduction strategies and emerging technologies identified in the Metrolink Climate Action Plan. The No Project Alternative would not result in a significant impact related to construction or operational activities. Construction impacts would be less than those of the Proposed Project, which were determined to not be significant.

A consequence of the No Project Alternative would be that Metro would not be able to improve regional transit ridership to the level of improvement under the Proposed Project. It is anticipated that expansion of Metrolink service along the AVL under the Proposed Project would reduce regional vehicle miles traveled by making Metrolink service a more attractive mode of transportation through the provision of more frequent and reliable service. While existing AVL service would be able to accommodate some future regional growth in ridership, the potential VMT reduction associated with the No Project Alternative would be minimal as only one additional late-night train on Fridays and Saturdays would be added to AVL service under the No Project Alternative. The benefit of improved ridership and associated VMT reduction would not be fully realized under the No Project Alternative. The No Project Alternative would have no potential to create impacts related to GHG emissions. There would be no potential for operational impacts and the No Project Alternative would avoid significant impacts related to net increases in GHG emissions associated with increased fuel usage from rail propulsion.

Hazards and Hazardous Materials

The No Project Alternative would not include physical changes to the existing AVL or its surroundings that could affect hazards and hazardous materials. This alternative would not result in impacts to hazardous materials, airports, emergency response plans, or wildland fires. The No Project Alternative would not result in a significant impact related to hazards and hazardous materials. This impact would be less than what was identified for the Proposed Project, which was determined to be less-than-significant with implementation of mitigation measures.

Hydrology and Water Quality

The No Project Alternative would not include physical changes to the existing AVL or its surroundings that could affect hydrology and water quality. No impacts to surface water or groundwater resources would occur and existing site drainage would be unaffected. Existing operations along the AVL would be maintained and there would be no new potential for pollutants to affect receiving surface water or groundwater. The No Project Alternative would not result in a significant impact related to hydrology and water quality. Impacts would be less than or equal to those of the Proposed Project, which were determined to be less than significant with mitigation for construction activities and less than significant with mitigation for operational activities.

Noise and Vibration

The No Project Alternative would not include physical changes to the existing AVL or its surroundings that could affect noise and vibration. There would be no construction activities and no new noise or vibration exposure associated with heavy-duty equipment or construction trucks. There would be no potential to increase ambient noise levels, generate excessive vibration, or expose people to excessive aircraft noise. Impacts from construction would be less than those of the Proposed Project, which were determined to be significant and unavoidable.

The No Project Alternative includes the existing transportation network and land use developments that generate operational noise. Without the Proposed Project, mobile sources and land uses would continue to generate operational noise. However, there is no specific action associated with the No Build Alternative that would cause a new noise impact beyond existing conditions. While Metrolink trains would continue to generate noise associated with audible warning devices such as horns, impacts from operations would be less than those of the Proposed Project, which were determined to be less than significant.

Transportation

The No Project Alternative would not include physical changes to the existing AVL or its surroundings that could affect the transportation system. There would be no construction activities and associated lane closures and/or traffic hazards. There would be no potential to conflict with programs, plans, ordinance, or policies addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. There would also be no potential for increased hazards due to design features or incompatible land uses or inadequate emergency access. The No Project Alternative would not result in a significant impact related to construction activities. Construction impacts would be less than those of the Proposed Project, which were determined to be less than significant with mitigation.

The No Project Alternative would not change existing operating conditions on local roadways. There would be minor changes in AVL service operations associated with additional late-night trains, which would have limited potential for transportation effects. There would be no potential to conflict with programs, plans, ordinance, or policies addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. There would also be no potential for increased hazards due to design features or incompatible land uses or inadequate emergency access. Operational impacts would be less than those of the Proposed Project, which were determined to be less than significant.

Tribal Cultural Resources

The No Project Alternative would not include physical changes to the existing AVL or its surroundings that could affect tribal cultural resources. There would be no potential for construction or operational activities to disturb tribal cultural resources. The No Project Alternative would not result in a significant impact related to tribal cultural resources. Impacts would be less than or equal to those of the Proposed Project, which were determined to be less than significant with mitigation for construction activities and no impact for operational activities.

8.2 ALTERNATIVE 2 – HOURLY SERVICE-ONLY ALTERNATIVE

Alternative 2 would only implement the Balboa Double Track Extension capital improvement enabling hourly bi-directional service along the AVL between Los Angeles Union Station and the Antelope Valley during off-peak hours. The location of the Balboa Double Track Extension is a key section of the AVL, as identified in the AVL Study, which currently limits Metrolink's ability to provide clock-face interval service between the Santa Clarita Valley and the San Fernando Valley. Constructing the Balboa Double Track Extension, as opposed to either the Canyon Siding Extension or the Lancaster Terminal Improvements, would provide the length of double track necessary at a key choke point along the AVL to allow bi-directional hourly service between Los Angeles Union Station and the Lancaster Station. Expanded late-night service, including late-night trains seven days a week, would also be enabled under Alternative 2. Neither the Canyon Siding Extension nor the Lancaster Terminal Improvements would be implemented under Alternative 2, which would limit Metrolink's ability to expand service beyond hourly service due to the limitations on expanded rolling stock presented by existing storage track capacity and operational conflicts associated with the single-track configuration through the Canyon Siding Extension site. Alternative 2 would be consistent with Phase 2 of the Metro Board-approved Motion (File #2019-0571) supporting funding and planning for the Proposed Project.

8.2.1 Finding

Alternative 2 is the environmentally superior alternative because, as compared to the Proposed Project and design options, it avoids or reduces multiple construction impacts in the City of Santa Clarita and the City of Lancaster related to transportation, aesthetics, air quality, biological resources, cultural resources, energy resources, geology and soils, hazardous materials, noise, and tribal cultural resources. It also avoids or reduces operational impacts related to transportation, aesthetics, air quality, and greenhouse gas emissions. However, while Alternative 2 would reduce various impacts posed by the Proposed Project, significant and unavoidable impacts associated with operational diesel emissions would likely still occur as well as construction-related noise and vibration impacts associated with the Balboa Double Track Extension. Metro finds that Alternative 2 is infeasible because it would fail to meet some of the project objectives, namely the following:

- Provide regular and more frequent commuter rail services to improve regional connectivity, and accessibility through the enabling of 30-minute bi-directional passenger rail service to the Santa Clarita Valley, and 60-minute bi-directional service to Lancaster along the AVL corridor.
- Support the vision and goals for rail service in the region consistent with the California State Rail 2040 Plan and Metrolink's SCORE program.

Alternative 2 would not enable the 30-minute bi-directional passenger service on the AVL which has been identified in the integrated service goals laid out in the State Rail 2040 Plan as well as Metrolink's SCORE program. Additionally, while Alternative 2 achieves some of the Proposed Project objectives, such as improving passenger service reliability and efficiency and enhancing

operational flexibility, it does not achieve these objectives to the extent that the Proposed Project does. For example, the Canyon Siding Extension and Lancaster Terminal Improvements provide further operational flexibility at the Santa Clarita Station and additional layover facility capacity at the Lancaster Terminal, which would not be provided with implementation of Alternative 2.

Metro adopts CEQA Finding 3, as identified in Section 4 above and in Section 15091(a) of the CEQA Guidelines.

8.2.2 Facts in Support of Finding

Aesthetics

Construction activities associated with Alternative 2 would be limited to those associated with the Balboa Double Track Extension. Construction activities would generally be at a similar or lower grade as the surrounding roadways and uses. Although tall construction equipment would be used, views of the surrounding undeveloped hillsides from the I-5 freeway would remain and would not be substantially altered or obstructed and a less-than-significant impact on scenic vistas would occur. While the Balboa Double Track Extension is located along the I-5 corridor, which is an eligible State scenic highway, construction activities would primarily occur within the existing rail ROW. No construction activities or tree removals are proposed in the surrounding Santa Susana and San Gabriel Mountains, the primary visual resources within the I-5 freeway viewshed. Therefore, construction activities associated with Alternative 2 would not damage scenic resources associated with the I-5 freeway, and a less-than-significant impact on state scenic highways would occur. Residents would have limited views of construction activities since construction activities would occur to the rear of the residences, where views of construction activities would be mostly blocked by existing vegetation that separate the rail ROW from the residential properties. Motorists traveling along the I-5 freeway would continue to have unobstructed views of the Santa Susana and San Gabriel Mountains and a less-than-significant impact on visual character would result. Similar to the Proposed Project, construction activities may temporarily affect nighttime lighting and may result in glare, a potentially significant impact related to light and glare would occur during construction requiring mitigation. Alternative 2 would avoid potentially significant visual impacts in the City of Santa Clarita and City of Lancaster as no construction activities associated with the Canyon Siding Extension and Lancaster Terminal Improvements would occur. Overall, construction period impacts associated with Alternative 2 would be less than significant other than potential impacts related to nighttime construction lighting at the Balboa Double Track Extension.

Operation of Alternative 2 would consist of hourly Metrolink service and would result in similar impacts to visual quality and resources as the Proposed Project, namely the movement of trains along an existing and active rail corridor. Permanent alterations to landforms associated with the Balboa Double Track Extension would consist of soil cut slopes and retaining walls. Given the heights and locations of these components, Alternative 2 would not obstruct or substantially alter views of the surrounding mountains and the existing landforms outside of the rail and transportation corridors and the scenic features of the surrounding mountains would not be disturbed. Permanent changes to landforms associated with the Canyon Siding Extension would not occur under Alternative 2 thus avoiding potentially significant impacts. Operation of Alternative 2 would result in

less-than-significant impacts. Accordingly, impacts would be less than those of the Proposed Project, which were determined to be less-than-significant with mitigation.

Air Quality

Alternative 2 would only construct the Balboa Double Track Extension. As discussed in Section 3.3, Air Quality, and shown in Table 3.3-15, of the Draft EIR, daily air pollutant emissions that would be generated during construction activities involved in the Balboa Double Track Extension, would remain well below the applicable SCAQMD mass daily thresholds at the regional and local scales. Emissions generated during construction would be related to a daily construction equipment activity, construction worker trips, and haul truck trips. Similar to the Proposed Project, Alternative 2 would result in less-than-significant impacts related to construction activities. However, the quantity of construction emissions associated with Alternative 2 would be less than those of the Proposed Project as no construction work associated with the Canyon Siding Extension or the Lancaster Terminal Improvements would occur.

Similar to the Proposed Project, Alternative 2 would operate Metrolink trains along the AVL but only provide hourly service. Accordingly, emissions that would be generated by Metrolink diesel locomotives would be less than those under the Proposed Project; however, it is anticipated that Alternative 2 would result in less ridership than the Proposed Project and would not reduce VMT and associated mobile source pollutant emissions as much as the Proposed Project. Rail propulsion operations under Alternative 2 would generate emissions of NO_X that would exceed the SCAQMD regional thresholds. The significant impact does not account for future emission reductions associated with the Metrolink Climate Action Plan. Metrolink goals include transitioning to 100 percent petroleum fuel free through the application of renewable diesel fuel by 2022 and achieving 100 percent zero emissions by 2028 through the application of alternative propulsion technologies. If Metrolink can realize these aspirational goals, Project-related NO_X emissions would be significantly reduced by using locomotive technology that results in zero emissions rather than use of petroleum fuel. As these emission reduction goals are considered aspirational and Metrolink is in the process of studying fleet modernization and emerging zero- and near-zero-emissions applications, the implementation schedule for transitioning away from the existing locomotive fleet to a petroleum-free fleet and then to a net zero emissions fleet is not known at this time. Therefore, NO_X reductions associated with these goals have not been quantified and impacts associated NOx emissions from Proposed Project operations are considered significant and unavoidable. Regardless, it is important to note that Metrolink's "moon shot" is to transition its fleet to zero emissions by 2028 which is also the anticipated time AVL service would be increased as a result of the Proposed Project. Regardless, similar to the Proposed Project, Alternative 2 would also result in a significant and unavoidable impact, although to a lesser degree than the Proposed Project as locomotive activity along the AVL would not be as frequent as the Proposed Project.

Similar to the Proposed Project, Alternative 2 would not conflict with or obstruct air quality plans, result in a considerable cumulative net increase of a criteria pollutant, expose sensitive receptors to substantial pollutant concentrations, or result in other emissions such as odors that could adversely affect a substantial number of people.

Biological Resources
Alternative 2 would not construct the Canyon Siding Extension or the Lancaster Terminal Improvements and would therefore avoid potential impacts on terrestrial habitats, riparian habitats, or wetlands in the City of Santa Clarita and the City of Lancaster. Impacts associated with the Balboa Siding Extension would include vegetation removal, including mature trees as well as grading activities near identified water features that may support wetland indicators. Accordingly, Alternative 2 would have the potential to affect migratory and nesting bird species and roosting bats, which could result in a potentially significant impact. There would be no potential to conflict with policies or ordinances protecting biological resources or conflict with conservation plans. Construction impacts would be less than those of the Proposed Project, which were determined to be less-than-significant with mitigation; however, impacts would still be potentially significant requiring mitigation.

Cultural Resources
Alternative 2 would not construct the Canyon Siding Extension or the Lancaster Terminal Improvements and would avoid ground disturbing activities in the City of Santa Clarita and the City of Lancaster. However, there is the possibility that ground-disturbing activities during the excavation of the cut slopes and addition of retaining walls associated with the Balboa Double Track Extension could impact previously undiscovered prehistoric or archaeological resources, a potentially significant impact. Accordingly, construction impacts could require mitigation measures to mitigate inadvertent impacts to potential subsurface archaeological deposits similar to the Proposed Project. Alternative 2 would have less potential to encounter subsurface archaeological resources than the Proposed Project, which was determined to result in a less-than-significant impact with mitigation. Similar to the Proposed Project, operational activities would not result in a significant impact.

Energy
Alternative 2 would not include substantial construction activities related to the Proposed Project as only the Balboa Double Track Extension would be constructed. As discussed in Section 3.6, Energy Resources, construction activities would consume petroleum-based fuels amounting to approximately 1,299,588 gallons of diesel fuel and 21,433 gallons of gasoline for the Balboa Double Track Extension. This level of fuel consumption would be less than that required for the Proposed Project, which was determined to result in less-than-significant impacts related to construction activities.

Similar to the Proposed Project, direct electricity demand for locomotive propulsion and from Metrolink stations would not be significant. Energy consumption would be less than that of the Proposed Project due to the fewer number of trains and rolling stock required to provide hourly service. There would be no potential to conflict with energy conservation plans. Similar to the Proposed Project, Alternative 2 would not result in a significant impact related to operational activities. However, it is anticipated that Alternative 2 would result in less ridership than the Proposed Project. As a result, this alternative would not reduce VMT and associated transportation energy use as much as the Proposed Project. Alternative 2 would result in less of a permanent energy benefit than the Proposed Project.

Geology, Soils, and Paleontological Resources

The Balboa Double Track Extension is intersected by the San Fernando and Santa Susana faults within the Sierra Madre Fault Zone; to the south of the Balboa Double Track Extension lies the Mission Hills Fault Zone and Northridge Fault. Similar to the Proposed Project, Alternative 2 would be subject to seismic-related risks, which would require mitigation to address geotechnical design. Construction of the Balboa Double Track Extension would require the re-alignment of both the existing Main Line track and existing Sylmar Siding, and installation of an approximately 475-foot retaining wall along the west side of the AVL corridor. As a result, construction activities associated with Alternative 2 have the potential to affect slope stability which could be addressed by mitigation measures similar or the same as those required under the Proposed Project. Construction impacts would be less than those of the Proposed Project as geotechnical and paleontological considerations associated with the Canyon Siding Extension and the Lancaster Terminal Improvements would not apply. Construction impacts would be less-than-significant with mitigation. Similar to the Proposed Project, operational activities would not result in a significant impact.

Greenhouse Gas Emissions

Alternative 2 would include construction of the Balboa Double Track Extension. As discussed in Section 3.8, Greenhouse Gas Emissions, construction activities would generate GHG emissions through the exhaust of off-road equipment and on-road vehicles that would be used to complete the work. As shown in Table 3.8-7, construction of the Balboa Double Track Extension site improvements would generate approximately 1,676.1 metric tons of carbon dioxide equivalent ($MTCO_2e$) of GHG emissions. Per SCAQMD guidance, GHG construction emissions are considered together with operational emissions to assess significance. Similar to the Proposed Project, Alternative 2 would use diesel locomotive engines consistent with existing Metrolink operations and Alternative 2 would result in the addition of fewer trains to AVL operations resulting in fewer GHG emissions associated with operations. However, while the direct operational GHG emissions have not been quantified for Alternative 2, it is presumed that Alternative 2 would result in a net increase in GHG emissions when considering direct emissions from construction, operational rail propulsion, and taking into considering the reduction in VMT. Therefore, construction and operation of Alternative 2 would result in fewer direct GHG emissions overall when compared to the Proposed Project, but would not avoid the significant impact associated with direct net increases in GHG emissions. It is anticipated that Alternative 2 would increase ridership on the Metrolink system thereby reducing regional VMT. However, the VMT reduction would be less than that of the Proposed Project but would still result in a reduction of transportation-related energy use. As a result, Alternative 2 would not conflict with GHG reduction plans. Similar to the Proposed Project, Alternative 2 would result in a significant impact related to direct GHG emissions from construction or operational activities but the total net increase in emissions would be less than the Proposed Project. Alternative 2 would result in less of a permanent GHG benefit than the Proposed Project as the VMT reduction associated with Alternative 2 would be less resulting in less of an indirect benefit. As discussed, the significant impact of this does not account for future emission reductions associated with the Metrolink Climate Action Plan. Metrolink goals include transitioning to 100 percent petroleum fuel free through the application of renewable diesel fuel by 2022 and achieving 100 percent zero

emissions by 2028 through the application of alternative propulsion technologies. If Metrolink can realize these aspirational goals Project-related and Alternative 2-related GHG emissions would be significantly reduced by not using petroleum fuel and eliminated by using locomotive technology that results in zero emissions. As these emission reduction goals are considered aspirational and Metrolink is in the process of studying fleet modernization and emerging zero- and near-zero-emissions applications, the implementation schedule for transitioning away from the existing locomotive fleet to a petroleum-free fleet and then to a net zero emissions fleet is not known at this time. Therefore, GHG emissions impacts associated with Alternative 2 are considered significant though less than those of the Proposed Project due to reduced fuel consumption associated with rail propulsion and fewer emissions associated with construction activities.

Hazards and Hazardous Materials

Alternative 2 would construct the Balboa Double Track Extension in the City of Los Angeles involving use of hazardous materials, including vehicle fuels, oils, and transmission fluids for on-site construction equipment. Although typical construction management practices limit and often eliminate the risk of accidental releases of hazardous materials, the extent and duration of Alternative 2 construction presents a possible risk to the environment through the routine transport of hazardous materials. Therefore, there is potential for a significant impact associated with construction activities and mitigation would be required. In addition, the Balboa Double Track Extension site is located within a known Methane Zone and Methane Buffer Zone. Accordingly, there is potential for ground disturbing activities such as track removal and grading to result in the release of methane vapor presenting potential risks of explosion, a potentially significant impact requiring mitigation. Alternative 2 would operate along the existing AVL and there would be no change to existing emergency response plans. There would be no new hazardous situation related to airports or wildland fires. Similar to the Proposed Project, Alternative 2 would result in a potentially significant impact related to hazards and hazardous materials. Impacts would be less than those of the Proposed Project as hazardous material concerns and conditions associated with the Canyon Siding Extension and Lancaster Terminal Improvements would not apply to the Alternative, which were determined to be less-than-significant with mitigation.

Hydrology and Water Quality

Alternative 2 would not construct the Canyon Siding Extension or the Lancaster Terminal Improvements and would avoid construction-related discharges of pollutants into receiving waters within the Santa Clara River Watershed and the Antelope Valley Drainage Basin as well as potentially contaminated groundwater from the Canyon Siding Extension site. Potential impacts associated with construction of the Balboa Double Track Extension include temporary changes in grades and drainage patterns, discharge of pollutants into surface waters, exposure of soils to stormwater and erosive conditions which have the potential to result in significant impacts on water quality if not mitigated. Since impacts associated with the Canyon Siding Extension and the Lancaster Terminal would be avoided, impacts associated with Alternative 2 would be less than those of the Proposed Project, which were determined to be less-than-significant with mitigation; however, impacts would still be potentially significant requiring mitigation.

Noise

Alternative 2 would include construction of the Balboa Double Track Extension which poses potentially significant construction impacts to sensitive land uses adjacent to the AVL ROW. Construction period impacts associated with the Canyon Siding Extension and Lancaster Terminal Improvements would not apply to Alternative 2. Therefore, impacts of Alternative 2 would be less than those of the Proposed Project, which were determined to be significant and unavoidable. However, since Alternative 2 would include construction of the Balboa Double Track Extension, construction impacts associated with the Alternative would still be significant and unavoidable.

Alternative 2 would operate within the existing AVL ROW and would enable hourly Metrolink service. As fewer trains would operate along the AVL under Alternative 2, operational impacts would be less than those estimated for the Proposed Project, which did not exceed significance thresholds. Similar to the Proposed Project, Alternative 2 would result in less-than-significant impacts related to operational activities.

Transportation

Alternative 2 would operate within the existing AVL ROW and would not include any alterations to existing station facilities or grade crossings. Construction of the Balboa Double Track Extension would result in additional traffic, which would consist of equipment, employee vehicles, and material deliveries in trucks along local roadways such as San Fernando Road in the City of Los Angeles. In addition, due to the required main track realignment of the Balboa Double Track Extension, there is potential for construction to result in schedule delays, increased dwell times, and overall decreased performance of the AVL as AVL service may be interrupted in order to install the track. The Balboa Double Track Extension under Alternative 2 would pose the same design considerations related to the I-5 pier protection. Due to potential AVL schedule delays and construction-related traffic, Alternative 2 would have the potential to result in a significant impact requiring mitigation measures. However, the construction-related impacts of Alternative 2 would be less than those of the Proposed Project, which were determined to be less-than-significant with mitigation.

Similar to the Proposed Project, there would be no potential for Alternative 2 to conflict with programs, plans, ordinance, or policies addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. There would also be no potential for increased hazards due to design features or incompatible land uses. As with the Proposed Project, Alternative 2 would result in additional trains traversing the AVL resulting in more frequent delays at at-grade rail crossings; however, the frequency would be less than that of the Proposed Project between Santa Clarita Valley and Los Angeles Union Station as only hourly service would be provided. It can reasonably be assumed that Alternative 2 would result in some decrease in regional VMT though the improvement would be less than the Proposed Project, as 30-minute service under the Proposed Project is anticipated to attract more ridership than Alternative 2 service improvements due to convenience and reliability associated with more frequent service. Operational impacts would be less than those of the Proposed Project, which were determined to be less than significant.

Tribal Cultural Resources

Alternative 2 would not construct the Canyon Siding Extension or the Lancaster Terminal Improvements and would avoid ground disturbing activities in the City of Santa Clarita and the

City of Lancaster. However, there is the possibility that ground-disturbing activities during the excavation of the cut slopes and addition of retaining walls associated with the Balboa Double Track Extension could impact previously undiscovered buried tribal cultural resources of historical significance, a potentially significant impact. Accordingly, construction impacts would require mitigation measures to mitigate inadvertent impacts to potential buried tribal cultural resources similar to the Proposed Project. Construction impacts from Alternative 2 would have less potential to encounter undiscovered tribal cultural resources as no construction activities associated with the Canyon Siding Extension or the Lancaster Terminal Improvements would occur. Impacts of the Proposed Project were determined to be less-than-significant with mitigation. Similar to the Proposed Project, operational activities would not result in a significant impact.

9. FINDINGS REGARDING MITIGATION MEASURES

Metro has considered every mitigation measure recommended in the EIR. To the extent that these Findings conclude that the mitigation measures outlined in the EIR are feasible and have not been modified, superseded or withdrawn, Metro hereby binds itself to implement or, as appropriate, require implementation of these measures. These Findings, in other words, are not merely informational, but rather constitute a binding set of obligations that will come into effect when Metro adopts a resolution approving the Proposed Project. The mitigation measures are referenced in the MMRP adopted concurrently with these Findings and will be effectuated through the process of constructing and implementing the Proposed Project.

10. STATEMENT OF OVERRIDING CONSIDERATIONS

Pursuant to PRC Section 21081(b) and CEQA Guidelines Section 15093(a) and (b), Metro is required to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project.

For the foregoing reasons, Metro finds that the Proposed Project's unavoidable significant environmental impacts (Section 5.0) are outweighed by these considerable benefits.

- Improved ability of Antelope Valley Line to meet strong population and employment growth forecast over the next 20 years.
- Improved passenger rail service reliability and efficiency between the Antelope Valley and Los Angeles Basin to compete with personal automobile travel along congested freeways such as State Route-14 and the I-5 freeway.
- Provides necessary supporting infrastructure improvements to enhance operational flexibility and reliability along the AVL corridor.
- Improved regional connectivity to transit riders and commuters.
- Decreased regional VMT.
- Improved passenger rail travel speed and reliability, including designated service timeslots and clockface service intervals.
- Reduced train idling times resulting from additional double track provided by the Proposed Project.
- Increased rail operational capacity to meet future demand.
- Improved mobility options for communities along the AVL corridor that are identified Equity Focus Communities.
- Improved commuter service to major employment centers for communities such as the Cities of Lancaster, Palmdale, Santa Clarita, Sylmar, San Fernando, Burbank, Glendale, and unincorporated communities such as the Towns of Acton and Agua Dulce. Many of these communities have high concentrations of workforce and affordable housing with higher-than-average transit dependency.
- Improved safety through the implementation of updated infrastructure at two existing at-grade crossings.
- Incremental service improvement that maintains flexibility for future infrastructure and service improvements.