

Chapter 7 Environmental Assessment

7.1 Introduction

This section reviews the relationship of the proposed action to a series of environmental topics, federal legislation, and executive orders that address all major areas of the physical environment, as defined by the Federal Transit Administration (FTA). The Code of Federal Regulations, which outlines FTA policies and procedures for implementing NEPA, states that an Environmental Assessment (EA) should “determine which aspects of the proposed action have potential for social, economic, or environmental impact.”¹³¹ The environmental assessment discussion below briefly describes the affected environment, potential environmental effects, and cumulative impacts related to each topic area. Where potential effects are identified, mitigation measures are provided to minimize or avoid social, economic, or environmental harm.

7.2 Environmental Assessment

7.2.1 Zoning and Land Use

Affected Environment

The Wilshire corridor is a densely developed corridor with an abundance of commercial land uses. The majority of land uses adjacent to the Wilshire corridor consist of parcels zoned for office, retail, commercial, residential or institutional uses (e.g., museums). Commercial development and some multi-family residences front both sides of the project corridor and the intersecting north/south streets. In addition, the Wilshire corridor forms a central area for commercial activity for a number of neighborhoods, including Westlake/MacArthur Park, Lafayette Park, Koreatown, Wilshire Center, Mid-Wilshire, Miracle Mile, Carthay Circle, Carthay Square, South Beverly Roxbury, Westwood, Boulevard Heights, West Los Angeles, and Brentwood Village.

The project site is located within five community plan areas in the City of Los Angeles. These community plan areas include Westlake, Wilshire, Westwood, West Los Angeles, and Brentwood-Pacific Palisades and are briefly described below.

The Wilshire corridor within the Westlake Community Plan Area is mainly commercial and includes office and retail (small businesses and strip malls), interspersed with some residential uses, parking lots and recreational facilities, such as MacArthur Park and Lafayette Park. The area consists of a mix of mid-rise (8-10 stories) and low-rise buildings.

¹³¹ Code of Federal Regulations, Title 23 Section 771.119(b) *Environmental Assessments*.

In the Wilshire Community Plan Area, a long, narrow corridor of commercial activity exists along Wilshire Boulevard, comprised of professional offices and retail (strip mall and small businesses), and interspersed with a few multi-family residential areas. Additionally, the corridor includes Museum Row, Hancock Park, and the La Brea Tar Pits. Both high and mid-size buildings front Wilshire Boulevard in this area.

The Westwood Community Plan Area portion of the project site consists of multiple-family housing, both high-medium and medium density residential. High-rise towers are located along Wilshire Boulevard between the Los Angeles Country Club and Malcolm Avenue along Wilshire Boulevard. Near Westwood Boulevard, the high-rise office corridor along Wilshire serves as a regional business center with financial institutions and corporate headquarters. The community plan area includes destinations, such as the Los Angeles Country Club and the Los Angeles National Cemetery. The buildings along Wilshire Boulevard contains numerous high-rise (20 stories) and mid-rise (8-10 stories) office buildings.

The West Los Angeles Community Plan Area portion of the project site consists of commercial land use, primarily consisting of strip development. The majority of commercial facilities are either small-scale and free standing or mini-mall type buildings designed to primarily serve local neighborhoods. The Wilshire corridor in this community plan area also includes destinations, such as the Los Angeles Veterans Administration and Hospital Complex. The area consists of a mix of mid-rise (8 to 10 stories) and low-rise buildings.

The portion of the Wilshire corridor in the Brentwood-Pacific Palisades Community Plan Area is mainly comprised of commercial uses, such as offices and small-scale and free standing or mini-mall type commercial developments. The area consists of a mix of mid-rise (8-10 stories) and low-rise buildings.

Impacts

No Project Alternative

Under the No Project Alternative, proposed improvements to 9.9 miles of the Wilshire corridor included under the proposed action would not be implemented. No construction activities would take place. Existing land uses would not be affected.

No adverse effects related to consistency with applicable land use plans and policies would occur under the No Project Alternative.

Proposed Action

The proposed action consists of dedicated weekday peak period bus lanes in both the eastbound and westbound directions, to be achieved through the conversion of the existing curb lanes. In the Westlake, Wilshire, and Westwood Community Plan Areas, the proposed action would convert existing curb lanes to weekday peak period bus lanes for an already existing

transit route between Valencia Street and Fairfax Avenue, the Beverly Hills City limits and Comstock Avenue, Malcolm Avenue and Sepulveda Boulevard, Bonsall Avenue and Federal Avenue, and Barrington Avenue and Centinela Avenue. In addition, the proposed action would include the removal of jut outs, realignment of curbs and creation of peak period bus lanes between Comstock Avenue and Malcolm Avenue. A portion of the project corridor is under County jurisdiction between Veteran Avenue and Federal Avenue (approximately 0.8 mile). The project elements in this portion of the corridor include creating bus lanes by reducing the sidewalk widths on both sides of Wilshire Boulevard to a uniform width, restriping of lanes, and lengthening the eastbound left-turn pocket at Sepulveda Boulevard.

In the West Los Angeles and Brentwood-Pacific Palisades Community Plan Areas, both sides of Wilshire Boulevard would be widened by reducing the sidewalk widths on both the north and south sides to accommodate a new eastbound peak period bus lane between Federal Avenue and Barrington Avenue and conversion of the westbound curbside lane to a peak hour bus lane. No properties would be acquired, and no land use changes would occur.

Construction impacts anticipated under the proposed action would be not be adverse and would be considered temporary. The proposed action would not require any land use changes along the project corridor. Accordingly, no adverse impacts to surrounding land uses would occur.

The proposed action would be consistent with local plans and policies identified in the Westlake, Wilshire, Westwood, Brentwood-Pacific Palisades, and West Los Angeles Community Plan. No adverse effects would occur.

Alternative A – Truncated Project Without Jut-Out Removal

Alternative A consists of dedicated weekday peak period curbside bus lanes in both the eastbound and westbound directions similar to those identified under the proposed action. However, the alignment would terminate at S. Park View Street on the eastern end instead of Valencia Street. Furthermore, the jut-outs between Comstock Avenue and Malcolm Avenue would be retained, but additional reconstruction and resurfacing of 1.8 miles of curb lanes from Fairfax Avenue to San Vicente Boulevard and from the western boundary of the City of Beverly Hills to Westholme Avenue would occur.

However, similar to the proposed action, land use impacts anticipated under this alternative would not be considered adverse. This alternative would not require any land use changes along the project corridor. In the West Los Angeles and Brentwood-Pacific Palisades Community Plan Areas, both sides of Wilshire Boulevard would be widened by reducing the sidewalk widths and restriping to accommodate a new eastbound bus lane between Federal Avenue and Barrington Avenue. No properties would be acquired, and no land use changes would occur.

Alternative A would be consistent with local plans and policies identified in the Westlake, Wilshire, Westwood, Brentwood-Pacific Palisades, and West Los Angeles Community Plan. No adverse effects would occur.

Measures to Minimize Harm

No Project Alternative

No mitigation measures would be required.

Proposed Action

No mitigation measures would be required.

Alternative A – Truncated Project Without Jut-Out Removal

No mitigation measures would be required.

Cumulative Impacts

No Project Alternative

Land uses would remain in their existing conditions. No improvements to mobility along Wilshire Boulevard would occur under this alternative.

No cumulatively adverse effects to surrounding land uses or to local land use plans or policies would result from the No Project Alternative.

Proposed Action

No adverse cumulative impacts to local land use plans or policies are anticipated to occur under the proposed action. The proposed action would facilitate improved mobility along Wilshire Boulevard. A series of general improvements would be made to Wilshire Boulevard. These would include the conversion of existing curb lanes to bus lanes and the upgrading of the existing transit signal priority system. These project elements would not require major construction work. The proposed action would not result in conflicts with any applicable land use plan, policy, or regulation. In addition, the proposed action would not result in any land use compatibility conflicts, which could have the potential to result in significant adverse changes to the existing land use pattern.

No cumulatively adverse effects to surrounding land uses or to local land use plans or policies would result from the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, no adverse cumulative impacts to local land use plans or policies would occur under Alternative A. This alternative would

facilitate improved mobility along Wilshire Boulevard. A series of general improvements would be made to Wilshire Boulevard. These would include the conversion of existing curb lanes to bus lanes and the upgrading of the existing transit signal priority system. These project elements would not require major construction work. This alternative would not result in conflicts with any applicable land use plan, policy, or regulation. In addition, the alternative would not result in any adverse cumulative land use compatibility conflicts, which could have the potential to result in significant adverse changes to the existing land use pattern.

No cumulatively adverse effects to surrounding land uses or to local land use plans or policies would result from Alternative A.

7.2.2 Traffic and Parking

Affected Environment

Most daily travel (in terms of VMT) in the study area occurs on surface streets. The project corridor is within the jurisdictions of the City of Los Angeles, the County of Los Angeles, and the City of Beverly Hills. Roadways in these jurisdictions have functional classifications that include Major Highway, Secondary Highway, Collector Street, and Local Street.

Wilshire Boulevard is a Major Highway (Class II) with three lanes in each direction in most areas. In the Westwood area between I-405 and Glendon Avenue, Wilshire Boulevard has four lanes in each direction. In the Westlake area east of Park View Street, Wilshire Boulevard has two lanes in each direction. Within the City of Los Angeles, on-street parking is permitted on both sides of the street except during peak periods (7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 7:00 p.m.) in most areas along Wilshire Boulevard. A brief description of other streets and roadways in the project area, including, but not limited to, Santa Monica Boulevard, Olympic Boulevard, Alvarado Street, Crenshaw Boulevard, Beverly Glen Boulevard, Sepulveda Boulevard, I-405, is presented in Section 4.1 of this document and in the traffic report prepared by Iteris in March 2010 (Appendix B).

Impacts

No Project Alternative

No construction activities or change in operational conditions would occur within the Wilshire corridor. Therefore, the No Project Alternative would not result in an adverse effect related to traffic.

No adverse effects related to traffic impacts would occur.

Proposed Action

Traffic

The proposed action generally consists of converting the existing eastbound and westbound curb lanes along Wilshire Boulevard to weekday peak-period bus lanes, thus restricting these lanes to buses and right-turning vehicles only, within the Los Angeles City limits from Valencia Street on the east to Centinela Avenue on the west, as well as within Los Angeles County limits from Veteran Avenue on the east to Federal Avenue on the west, excluding the City of Beverly Hills. The bus lane is expected to begin operations in 2012; therefore, the year 2012 was chosen to represent opening year conditions. Traffic volume forecasts for year 2012 and 2020 conditions (without project and with project scenarios) were based upon the results of the SCAG 2008 RTP travel demand model.

The proposed action would result in unacceptable levels of service and exceed local criteria for determining traffic impacts as a result of increased delays at 18 of 74 studied intersections in 2012 and 19 of 74 intersections in 2020. Most of the delays would be 15 seconds or less, but because the intersections are already operating at unacceptable levels of service, the established local threshold is very low and triggers a significant local impact resulting from delays as low as 2.5 seconds (see Section 4.1 or Appendix B). The proposed action would include **Mitigation Measure T-1** in order to reduce or avoid these impacts. After mitigation, unavoidable impacts would remain at 8 of 74 intersections in 2012 and 9 of 74 intersections in 2020. However, delays of over 15 seconds would occur at only 3 of the 74 intersections in 2012 and at only 2 of 74 intersections in 2020.

Beyond the Wilshire corridor, the proposed action would be expected to result in a beneficial effect on traffic in the metropolitan Los Angeles, particularly within the Mid-City and Westside areas, through the increased efficiency and public utilization of the Wilshire BRT system. Therefore, despite any localized traffic impacts discussed above, within the larger context of the Wilshire corridor and the City of Los Angeles, the proposed action would not have an adverse effect on traffic and circulation.

No adverse effects related to traffic impacts would occur under the proposed action.

Parking

The proposed action would result in the removal of approximately 11 parking spaces between Valencia Street and Fairfax Avenue ((a distance of approximately 5.5 miles) to accommodate larger or relocated bus stops for facilitating bus movements in and out of stops. The removed parking spaces would be spread throughout this segment of the project, with no more than three spaces being removed on any single block. The removed parking spaces would have a small effect on parking supply to serve local businesses during off-peak hours. During peak periods, parking is prohibited under current conditions; as such, the removal of these parking spaces would not affect parking supply at all.

In addition to the 11 parking spaces discussed above, under the proposed action, parking in approximately 85 existing on-street parking spaces between Selby Avenue and Comstock Avenue would be prohibited during peak hours. As a result, guests of certain residents may be required to either park in spaces on adjacent streets within a preferential parking district or use off-street visitor parking spaces. However, a project's potential impact on parking supply is considered a *social* impact, not an environmental impact. Therefore, the removal or restriction of parking spaces on Wilshire Boulevard would not result in adverse effects related to parking.

No adverse effects related to parking would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Traffic

Similar to the proposed action, Alternative A would involve improvements to the Wilshire BRT system. Alternative A would not include the removal of jut-outs between Malcolm Avenue and Comstock Avenue and include an additional 1.8 miles of curb lane reconstruction/resurfacing.

Alternative A would result in unacceptable levels of service and exceed local criteria for determining traffic impacts as a result of increased delays at 15 of 74 studied intersections in 2012 and 14 of 74 intersections in 2020. Similar to the proposed action, most of the delays would be 15 seconds or less, but because the intersections are already operating at unacceptable levels of service, the established local threshold is very low and triggers a significant local impact resulting from delays as low as 2.5 seconds (see Section 4.1 or Appendix B). Accordingly, Alternative A would include **Mitigation Measure T-1**, in order to reduce or avoid these impacts. After mitigation, unavoidable impacts would occur at 8 of 74 intersections in 2012, and 5 of 74 intersections in 2020. However, delays of over 15 seconds would occur at only 2 of the 74 intersections in 2012 and 2020.

Beyond the Wilshire corridor, Alternative A would be expected to result in a beneficial effect on traffic in the metropolitan Los Angeles, particularly within the Mid-City and Westside areas, through the increased efficiency and public utilization of the Wilshire BRT system. Therefore, despite localized traffic impacts, within the larger context of the Wilshire corridor and the City of Los Angeles, Alternative A would not have an adverse effect on traffic and circulation.

No adverse effects related to traffic impacts would occur under Alternative A.

Parking

Similar to the proposed action, Alternative A would result in the removal of approximately 11 parking spaces between S. Park View Street and Fairfax Avenue (a distance of approximately 4.8 miles) to accommodate larger or relocated bus stops for facilitating bus movements in and out of stops. The removed parking spaces would be spread throughout this segment of the project, with no more than three spaces being removed on any single block. The removed parking spaces would have a small effect on parking supply to

serve local businesses during off-peak hours. During peak periods, parking is prohibited under current conditions; as such, the removal of these parking spaces would not affect parking supply at all.

Under Alternative A, parking supply would be unchanged between Comstock Avenue and Malcolm Avenue since jut-outs in this area would be retained. Therefore, no impact on parking would occur in this area.

No adverse effects related to parking would occur under Alternative A.

Measures to Minimize Harm

No Project Alternative

No adverse effects on traffic and parking would occur under the No Project Alternative; therefore, no mitigation is necessary.

Proposed Action

Although no adverse effects related to regional traffic impacts would occur under the proposed action, as discussed in the Traffic Study and in Section 4.1, **Mitigation Measure T-1** would be implemented in order to avoid or reduce some of the expected localized traffic impacts. No adverse effects on parking would occur.

Alternative A – Truncated Project Without Jut-Out Removal

Although no adverse effects related to regional traffic impacts would occur under Alternative A, as discussed in the Traffic Study, and in Section 4.1, **Mitigation Measure T-1** would be implemented in order to avoid or reduce some of the expected localized traffic impacts. No adverse effects on parking would occur.

Cumulative Impacts

No Project Alternative

No adverse effects on traffic and parking would occur under the No Project Alternative; therefore, no cumulatively adverse effects would be expected to occur. The No Project Alternative would neither directly affect nor contribute to a cumulative impact on regional traffic circulation and parking nor result in any possible beneficial cumulative effect.

No adverse effects would occur, and, therefore, no cumulatively adverse effects would occur.

Proposed Action

The RTP PEIR indicates that the region is expected to grow in both population and vehicle miles traveled (VMT). Development and redevelopment would result in increased traffic congestion, including along Wilshire Boulevard. The proposed action would improve the efficiency of existing transit services, which would expand regional transportation choices. The proposed action is aimed at improving regional quality of life and overall mobility. The proposed action may assist in the reduction in VMT due to the increased use of transit associated with the shift from automobile use to public transit by continuing to attract new transit riders through improved bus travel times and service reliability. Therefore, the proposed action would not result in an adverse cumulative effect on regional traffic circulation.

In terms of impacts of the proposed action on local traffic circulation, the proposed action would result in significant and unavoidable impacts related to the exceedance of LOS criteria for multiple intersections in both years 2012 and 2020, as discussed above. However, these impacts would not be considered adverse under NEPA as they are localized impacts and do not constitute a regionally substantial adverse effect. Furthermore, **Mitigation Measure T-1** would be implemented in order to avoid or reduce these localized impacts. Therefore, in consideration of the cumulatively beneficial effects that would result from the operation of the proposed action, the cumulative effect of the localized traffic impacts would be not be considered adverse under NEPA.

No adverse effects related to parking would occur individually or cumulatively.

The proposed action would result in regionally beneficial cumulative effects on traffic circulation, despite localized traffic impacts. No cumulative adverse effects would occur.

Alternative A – Truncated Project Without Jut-Out Removal

As discussed for the proposed action, the RTP PEIR indicates that the region is expected to grow in both population and vehicle miles traveled (VMT). Development and redevelopment would result in increased traffic congestion, including along Wilshire Boulevard. As with the proposed action, Alternative A would improve the efficiency of existing transit services, which would expand regional transportation choices.

However, in terms of impacts of Alternative A on local traffic circulation, Alternative A would result in significant and unavoidable impacts related to the exceedance of LOS criteria for multiple intersections in both years 2012 and 2020, as discussed above. However, these impacts would not be considered adverse under NEPA as they are localized impacts and do not constitute a regionally substantial adverse effect. Furthermore, **Mitigation Measure T-1** would be implemented in order to avoid or reduce these localized impacts. Therefore, in consideration of the cumulatively beneficial effect that would result from the operation of Alternative A, the cumulative

effect of the localized traffic impacts would not be considered adverse under NEPA.

No adverse effects related to parking would occur individually or cumulatively.

Alternative A would result in regionally beneficial cumulative impacts on traffic circulation, despite localized traffic impacts. No cumulative adverse effects would occur.

7.2.3 Air Quality

Affected Environment

As discussed in the Air Quality Assessment Report (Appendix C), the South Coast Air Quality Management District (SCAQMD) has jurisdiction over an area of approximately 10,743 square miles. This area includes all of Orange County, all of Los Angeles County except for the Antelope Valley, the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County.

The project corridor is located within the South Coast Air Basin (Basin), an approximately 6,745-square-mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The terrain and geographical location determine the distinctive climate of the Basin, which is a coastal plain with connecting broad valleys and low hills. The Basin is a subregion of the SCAQMD jurisdiction. While air quality in this area has improved, the Basin requires continued diligence to meet air quality standards.

The SCAQMD has divided the Basin into air monitoring areas and maintains a network of air quality monitoring stations located throughout the Basin. The project corridor's eastern half is located in the Central Los Angeles County Monitoring Area (i.e., Source Receptor Area [SRA] Number 1), while the western half is located in the Northwest Los Angeles County Coastal Monitoring Area (SRA 2). The nearest monitoring stations to the project corridor are the Los Angeles – North Main Street station to the east and the West Los Angeles – VA Hospital station near the western portion of the project corridor. The North Main Street station monitors O₃, PM₁₀, and PM_{2.5}, while the VA Hospital station monitors only O₃.

The Air Quality Assessment Report discusses the following pollutant trends: both State 1-hour and 8-hour O₃ standards were exceeded an average of four times each year at both stations. Particulate (PM₁₀ and PM_{2.5}) concentrations are largely affected by meteorology and show some variability during the 3-year reporting period. The State 24-hour PM₁₀ standard was exceeded three times in 2006, five times in 2007, and twice in 2008, while the national standard was not exceeded during the 3-year reporting period. The national PM_{2.5} standard was exceeded 11 times in 2006, 20 times in 2007, and 10 times in 2008.

According to the most current SCAQMD inhalation cancer risk data, the project corridor is located within a cancer risk zone of approximately 800 to 1,100 in one million.¹³² This is largely due to the project area's proximity to I-10 that is located just south of the project corridor. In addition, the I-405 freeway, which runs perpendicular to the project corridor in West Los Angeles, also contributes to the project area's baseline cancer risk. For comparison, the average cancer risk in the Basin at large is 1,194 per million.

Some population groups, such as children, the elderly, and acutely and chronically ill persons, especially those with cardio-respiratory diseases, are considered more sensitive to air pollution than others. Sensitive receptors within the project vicinity include multi-family residential land uses and schools located along the alignment.

Impacts

No Project Alternative

No construction activities or change in operational conditions would occur within the Wilshire corridor. Therefore, the No Project Alternative would not result in an adverse effect related to air quality impacts.

No adverse effects related to air quality impacts would occur.

Proposed Action

Criteria Pollutants

As detailed in the Air Quality Assessment Report, during project operation, traffic congestion would be the greatest potential contributor to criteria pollutants, particularly carbon monoxide (CO). However, adverse effects in the form of CO hotspots would not occur at the intersections with the highest traffic volumes located adjacent to sensitive receptors. Therefore, no adverse effects are anticipated to occur at any other locations in the study area because the conditions yielding CO hotspots would not be worse than those concentrations occurring at the analyzed intersections. Consequently, the sensitive receptors that are included in this analysis would not be adversely affected by CO emissions generated by the net increase in traffic that would occur under the proposed action. The proposed action would not cause an exceedance or exacerbate an existing exceedance of federal or state ambient air quality standards. Therefore, localized operational air quality impacts related to criteria pollutants, would not be considered substantially adverse.

Toxic Air Contaminants

The proposed action would likely have a beneficial effect on air quality by increasing public transit operational efficiency for the Wilshire BRT system. The proposed action would be expected to reduce air pollutant emissions by encouraging more commuters to leave their cars and ride the CNG powered buses.

¹³² South Coast Air Quality Management District, MATES III Carcinogenic Risk Interactive Map, available: <http://www2.aqmd.gov/webappl/matesiii/>, accessed July 25, 2008.

Regarding potential TAC emissions associated with the buildout and long-term operation of the proposed action, SCAQMD recommends that a health risk assessment (HRA) be conducted for projects that emit substantial diesel particulate emissions (e.g., truck stops and warehouse distribution facilities) or certain industrial projects that result in the emitting of acute and/or chronically hazardous TAC pollutants. Since the proposed action would operate CNG buses rather than diesel buses and would not result in the emission of acute and/or chronically hazardous TAC pollutants, an air toxics HRA is not warranted. Potential project-generated air toxic impacts on surrounding land uses would not be considered substantially adverse.

Operation of the proposed action would not result in a substantial adverse effect related to criteria pollutants or toxic air contaminants.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, Alternative A would not result in substantial adverse effects related to criteria pollutant emissions or toxic air contaminants. Similar to the proposed action, adverse effects would not occur at the intersections with the highest traffic volumes located adjacent to sensitive receptors. Therefore, no substantial adverse effects are anticipated to occur at any other locations in the study area because the conditions yielding CO hotspots would not be worse than those concentrations occurring at the analyzed intersections.

Regarding TACs, as with the proposed action, Alternative A would operate CNG buses rather than diesel buses and would not result in the emission of acute and/or chronically hazardous TAC pollutants. No substantial adverse effects related to toxic air contaminant impacts on surrounding land uses would occur.

Operation of Alternative A would not result in a substantial adverse effect related to criteria pollutants or toxic air contaminants.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur; therefore, no mitigation measures would be required.

Proposed Action

No substantial adverse effects would occur. Therefore, no mitigation measures would be required.

Alternative A – Truncated Project Without Jut-Out Removal

No substantial adverse effects would occur. Therefore, no mitigation measures would be required.

Cumulative Impacts

No Project Alternative

No construction activities or change in operational conditions would occur along the project corridor. Therefore no adverse effects would occur, and no cumulative impacts would result.

No adverse effects would occur, and, therefore, no cumulatively adverse effects would occur.

Proposed Action

The SCAQMD's approach for assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the federal and State Clean Air Acts. As previously discussed, the proposed action would be consistent with the AQMP, which is intended to bring the Basin into attainment for all criteria pollutants.

In addition, the mass regional emissions calculated for the proposed action (regional construction emissions) would not exceed applicable SCAQMD daily significance thresholds, which are designed to assist the region in attaining the applicable state and national ambient air quality standards. The proposed action would comply with the SCAQMD's Rule 403 (fugitive dust control) during construction, as well as all other adopted AQMP emissions control measures. Per SCAQMD rules and mandates, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on all projects Basin-wide, which would include all related projects. As such, cumulative impacts with respect to criteria pollutant emissions would be less than significant.

Cumulatively adverse effects would not occur related to criteria pollutant emissions under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, Alternative A would be consistent with the AQMP due to similar or lesser impacts than the proposed action. Therefore, cumulatively adverse effects related to criteria pollutant emissions would not occur.

Cumulatively adverse effects would not occur related to criteria pollutant emissions under Alternative A.

7.2.4 Metropolitan Planning and Air Quality Conformity

Affected Environment

The project corridor is located in the South Coast Air Basin (Basin). The South Coast Air Quality Management District (SCAQMD) is required, pursuant to the Federal Clean Air Act (CAA), to reduce emissions of criteria pollutants for which the Basin is in non-attainment (i.e., O₃, PM₁₀, and PM_{2.5}). The proposed action would be subject to SCAQMD's AQMP. The AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. These strategies are developed, in part, based on regional population, housing, and employment projections prepared by SCAG.

Impacts

No Project Alternative

No construction activities would occur related to the proposed action, and no change or improvement in operational conditions along the Wilshire corridor would occur. Therefore, the No Project Alternative would not result in an adverse effect related to metropolitan planning or air quality conformity.

No adverse effects related to planning or air quality conformity would result from the No Project Alternative.

Proposed Action

The proposed project is included in the Southern California Association of Governments (SCAG) Final 2008 Regional Transportation Plan (RTP) and SCAG Final Adopted 2008 Regional Transportation Improvement Program (RTIP) including Amendment 1-32, under project identification number LA29202W. The Final 2008 RTP and Final 2008 RTIP were found to be conforming by Federal Highway Administration (FHWA) on June 6, 2008 and November 17, 2008, respectively. The project design concept and scope as described in this Air Quality Report is consistent with the project description in the currently conforming RTP and RTIP. As such, the project's operational emissions, which include the ozone (O₃) precursors reactive organic gases (ROG) and nitrogen oxides (NO_x), meet regional transportation conformity determination requirements imposed by the U.S. Environmental Protection Agency (EPA). In addition, the project qualifies for an exemption from the requirement to determine conformity per 23 CFR 93.126. As such, the project does not require a project-level conformity analysis..

No adverse effects related to planning or air quality conformity would result from the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, Alternative A qualifies for an exemption from the requirement to determine conformity per 23 CFR 93.126. As such, the project does not require a project-level conformity analysis.

No adverse effects related to planning or air quality conformity would result from Alternative A.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no mitigation measures are necessary.

Proposed Action

No adverse effects would occur related to planning or air quality conformity under the proposed action. Therefore, no mitigation measures are necessary.

However, the SCAQMD is required, pursuant to the Clean Air Act, to reduce emissions of criteria pollutants for which the Basin is in non-attainment (i.e., O₃, PM₁₀, and PM_{2.5}). The proposed action would be subject to the SCAQMD's AQMP. The AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. These strategies are developed, in part, based on regional population, housing, and employment projections prepared by SCAG.

Furthermore, as standard practice for all LACMTA projects, the proposed action would comply with SCAQMD rules, including Rule 403 (Fugitive Dust), which would minimize fugitive dust emissions during construction.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, no adverse effects would occur related to planning or air quality conformity under the proposed action. Therefore, no mitigation measures are necessary.

As with the propose action, Alternative A would similarly conform to all required SCAQMDs pollution control strategies.

Cumulative Impacts

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no cumulative adverse effects would occur.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

No adverse effects related to metropolitan planning or air quality conformity would occur under the proposed action; therefore, no cumulative adverse effects would occur.

No cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, no adverse effects related to metropolitan planning or air quality conformity would occur under this alternative. Alternative A would involve a smaller project area and, therefore, would result in lower potential for air quality impacts. No adverse effects would be anticipated.

No cumulatively adverse effects would occur under Alternative A.

7.2.5 Carbon Monoxide Hot Spots

Affected Environment

As discussed in the Air Quality Assessment Report (Appendix C), within an urban setting, vehicle exhaust is the primary source of CO. Consequently, the highest CO concentrations are generally found close to congested intersections. Under typical meteorological conditions, CO concentrations tend to decrease as the distance from the emissions source (i.e., congested intersection) increases. For purposes of providing a conservative worst-case impact analysis, CO concentrations are typically analyzed at congested intersection locations. If impacts are less than significant close to congested intersections, impacts will also be less than significant at more distant sensitive-receptor locations. The Air Quality Assessment Report, in conjunction with the Traffic Impact Assessment, analyzed 74 key intersection locations along routes that accommodate much of the traffic traveling within the project area.

Impacts

No Project Alternative

No change or improvement in operational conditions along the Wilshire corridor would occur. Therefore, the No Project Alternative would not result in an adverse effect related to carbon monoxide hotspots.

No adverse effects related to carbon monoxide hotspots would result from the No Project Alternative.

Proposed Action

Traffic generated during the operational phase of the proposed action would have the potential to create local area CO impacts. To ascertain the proposed action's potential to generate localized air quality impacts, the Traffic Impact Assessment prepared for the project was reviewed to determine the potential for the creation of localized carbon monoxide (CO) hot spots at congested intersection locations. The SCAQMD recommends a hot spot evaluation of potential localized CO impacts when vehicle to capacity (V/C) ratios are increased by two percent or more at intersections with a level of service (LOS) of C or worse.

According to the Air Quality Assessment Report, of the 74 key intersection locations analyzed for the year 2012, 38 intersections could potentially create a localized CO hot spot with the proposed project. For the year 2020, it was concluded that 43 intersections could potentially create a localized CO hot spot with the proposed project.¹³³

Local area CO concentrations were projected using the CALINE 4 traffic pollutant dispersion model. The analysis of CO impacts followed the protocol recommended by the California Department of Transportation, published as *Transportation Project-Level Carbon Monoxide Protocol*, December 1997. It is also consistent with procedures identified through the SCAQMD's CO modeling protocol, with all four corners of each intersection analyzed to determine whether project development would result in a CO concentration that exceeds federal or state CO standards.

The proposed action's CO concentrations for a.m. and p.m. 1- and 8-hour CO levels for project build-out year 2012, and horizon year 2020 are presented in Tables 4.2-6 and 4.2-7, respectively (see Section 4.2). As shown therein, the proposed action would not have a substantial adverse effect on 1-hour or 8-hour local CO concentrations due to mobile source emissions.

Adverse effects would not occur at the intersections with the highest traffic volumes located adjacent to sensitive receptors. Therefore, no adverse effects are anticipated to occur at any other locations in the study area because the

¹³³ Based on SCAQMD-recommended screening criteria, any intersection that 1) operates at LOS C or worse, and 2) would experience an increase in peak-hour volume to capacity ratio of 2% or more as a result of project-related traffic, should be evaluated for potential to create a localized CO hotspot.

conditions yielding CO hotspots would not be worse than those concentrations occurring at the analyzed intersections. Consequently, the sensitive receptors that are included in this analysis would not be adversely affected by CO emissions generated by the net increase in traffic that would occur under the proposed action. The proposed action would not cause an exceedance or exacerbate an existing exceedance of a federal or state ambient air quality standards. Therefore, localized operational air quality impacts related to criteria pollutants, would not be considered substantially adverse.

No substantial adverse effect related to carbon monoxide hotspots would occur for any of the study area intersection locations under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, traffic generated during the operational phase of this alternative would have the potential to create local area CO impacts. According the Air Quality Assessment Report, of the 74 key intersection locations analyzed for the year 2012, 36 intersections could potentially create a localized CO hot spot under Alternative A. For the year 2020, it was concluded that 37 intersections could potentially create a localized CO hot spot under Alternative A.¹³⁴

As discussed for the proposed action above, under Alternative A, CO concentrations for a.m. and p.m. 1- and 8-hour CO levels for project build-out year 2012, and horizon year 2020 are presented in Tables 5-9 and 5-10, respectively (see Section 5.2.2). As shown therein, Alternative A would not have a substantial adverse effect on 1-hour or 8-hour local CO concentrations due to mobile source emissions. Similar to the proposed action, adverse effects would not occur at the intersections with the highest traffic volumes located adjacent to sensitive receptors. Therefore, no substantial adverse effects are anticipated to occur at any other locations in the study area because the conditions yielding CO hotspots would not be worse than those concentrations occurring at the analyzed intersections.

No substantial adverse effect related to carbon monoxide hotspots would occur for any of the study area intersection locations under Alternative A.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no mitigation measures are necessary.

¹³⁴ Based on SCAQMD-recommended screening criteria, any intersection that 1) operates at LOS C or worse, and 2) would experience an increase in peak-hour volume to capacity ratio of 2% or more as a result of project-related traffic, should be evaluated for potential to create a localized CO hotspot.

Proposed Action

No substantial adverse effect would occur related to carbon monoxide hotspots under the proposed action. Therefore, no mitigation measures are necessary.

Alternative A – Truncated Project Without Jut-Out Removal

No substantial adverse effect would occur related to carbon monoxide hotspots under Alternative A. Therefore, no mitigation measures are necessary.

Cumulative Impacts

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no cumulatively adverse effects would occur.

Cumulatively adverse effects would not occur related to carbon monoxide hotspots under the No Project Alternative.

Proposed Action

No substantial adverse effect would occur related to carbon monoxide hotspots under the proposed action. The sensitive receptors that are included in this analysis would not be adversely affected by CO emissions generated by the net increase in traffic that would occur under the proposed action, as shown in Tables 4.2-6 and 4.2-7 in Section 4.2 of this document. Therefore, no cumulatively adverse effects would be likely.

Per SCAQMD rules and mandates, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on all projects Basin-wide, which would include all related projects. As such, cumulative impacts with respect to carbon monoxide hotspots would not be considered adverse.

Cumulatively adverse effects would not occur related to carbon monoxide hotspots under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

No substantial adverse effect would occur related to carbon monoxide hotspots under this alternative. The sensitive receptors that are included in this analysis would not be adversely affected by CO emissions generated by the net increase in traffic that would occur under Alternative A, as shown in Tables 5-9 and 5-10 in Chapter 5 of this document. Therefore, no cumulatively adverse effects would be likely.

Cumulatively adverse effects would not occur related to carbon monoxide hotspots under Alternative A.

7.2.6 Greenhouse Gas Emissions

Affected Environment

Global climate change is caused by combined worldwide greenhouse gas (GHG) emissions, and mitigating global climate change will require worldwide solutions. GHGs play a critical role in the Earth's radiation budget by trapping infrared radiation emitted from the Earth's surface, which could have otherwise escaped to space. Prominent GHGs contributing to this process include water vapor, carbon dioxide (CO₂), nitrous oxide (N₂O), methane (CH₄), ozone (O₃), and certain hydro- and fluorocarbons. This phenomenon, known as the "greenhouse effect," keeps the Earth's atmosphere near the surface warmer than it would be otherwise and allows for successful habitation by humans and other forms of life. Increases in these gases lead to more absorption of radiation and warm the lower atmosphere further, thereby increasing evaporation rates and temperatures near the surface. Emissions of GHGs in excess of natural ambient concentrations are thought to be responsible for the enhancement of the greenhouse effect and to contribute to what is termed "global warming," a trend of unnatural warming of the Earth's natural climate. Climate change is a global problem, and GHGs are global pollutants, unlike criteria air pollutants (such as O₃ precursors) and TACs, which are pollutants of regional and local concern.

Impacts

No Project Alternative

No construction activities or changes in operational conditions along the Wilshire corridor would occur under the No Project Alternative; therefore, no adverse effect would occur related to GHGs.

No adverse effect related to GHG emissions would occur under the No Project Alternative.

Proposed Action

As detailed in the Air Quality Assessment Report (Appendix C), the proposed action's contribution to GHG emissions during short-term construction activities is estimated to be 62 metric tons. In an effort to put this number into perspective, statewide carbon dioxide equivalent (CO₂e) emissions for year 2006 were estimated to be 479.8 million metric tons. The proposed action's amount of emissions, without considering other cumulative global emissions, would be insufficient to cause substantial climate change directly. Thus, project emissions, in isolation, are not considered adverse. However, climate change is a global cumulative impact, and the proper context for

analysis of this issue is not a project's emissions in isolation, but rather as a contribution to cumulative GHG emissions.

During operation of the proposed action, it would be expected that a beneficial impact on GHG emissions would occur due to decreased traffic congestion along the Wilshire corridor, increased efficiency and use of the CNG-fueled Wilshire BRT, and decreased personal vehicle VMTs.

No substantial adverse effect related to GHG emissions would result under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Alternative A would have similar or lesser GHG emissions from construction activities, due to the smaller extent of proposed improvements and construction activities under Alternative A. Similar to the proposed action, Alternative A would also be expected to result in a beneficial impact on GHG emissions due to decreased traffic congestion along the Wilshire corridor, increased efficiency and use of the CNG-fueled Wilshire BRT, and decreased personal vehicle VMTs. Nevertheless, mitigation measures to reduce project-related GHG emissions by the greatest extent feasible are prescribed below.

No substantial adverse effect related to GHG emissions would result under the proposed action.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no mitigation measures are necessary.

Proposed Action

The proposed action would reduce GHG emissions, compared with existing conditions, by improving traffic circulation and relieving local congestion. Implementation of the prescribed mitigation measures during construction (**Mitigation Measures AQ-1** through **AQ-4** described in detail in Section 4,2) would further reduce the proposed action's GHG emissions.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action described above, Alternative A would reduce GHG emissions, compared with existing conditions, by improving traffic circulation and relieving local congestion. Implementation of the prescribed mitigation measures during construction (**Mitigation Measures AQ-1** through **AQ-4** described in detail in Section 4,2) would further reduce the GHG emissions generated by Alternative A.

Cumulative Impacts

No Project Alternative

No construction activities or changes in operational conditions along the Wilshire corridor would occur under the No Project Alternative; therefore, no adverse cumulative effect would occur related to GHGs.

No cumulative adverse effect related to GHG emissions would occur under the No Project Alternative.

Proposed Action

Because quantitative GHG guidelines, including relevant thresholds, have not been developed by the SCAQMD, emissions estimate provided by the Air Quality Assessment Report (Appendix C) are provided for information purposes only. According to a recent white paper by the Association of Environmental Professionals, “an individual project does not generate enough GHG emissions to significantly influence global climate change. Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHG emissions.” Project-related impacts are not expected to be adverse because climate change would not occur directly from project emissions. Nevertheless, implementation of the prescribed mitigation measures during construction (**Mitigation Measures AQ-1** through **AQ-4** described in detail in Section 4.2) would further reduce the proposed action’s GHG emissions contribution.

No substantial cumulative adverse effect related to GHG emissions would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed project, Alternative A would not result in a substantial adverse effect related to GHG emissions or global climate change. However, global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHG emissions.” Impacts resulting from Alternative A are not expected to be adverse because climate change would not occur directly from project emissions. Nevertheless, implementation of the prescribed mitigation measures during construction (**Mitigation Measures AQ-1** through **AQ-4** described in detail in Section 4.2) would further reduce the GHG emissions contribution generated by Alternative A.

No substantial cumulative adverse effect related to GHG emissions would occur under Alternative A.

7.2.7 Historic, Archaeological, and Paleontological Resources

This section summarizes cultural resources present within the project area, evaluates the potential project-related impacts to these resources, and provides mitigation measures, as applicable. The information provided herein is based upon the results and recommendations from reports prepared by ICF, Historic Resources Technical Report for the Wilshire Bus Rapid Transit Project and the Archaeological Survey Report for the Wilshire Bus Rapid Transit Project, both of which were prepared in January 2010 for the Los Angeles County Metropolitan Transportation Authority (LACMTA). The ICF reports are included in their entirety in Appendices D and E of this environmental document. The survey study of cultural resources was conducted under the provisions of Section 106 of the National Historic Preservation Act (NHPA).

National Historic Preservation Act of 1966 – Section 106

Enacted in 1966 and amended in 2000, the National Historic Preservation Act (NHPA) declared a national policy of historic preservation and instituted a multifaceted program, administered by the Secretary of the Interior, to encourage the achievement of preservation goals at the federal, state, and local levels. The NHPA authorized the expansion and maintenance of the National Register of Historic Places, established the position of State Historic Preservation Officer (SHPO), and provided for the designation of State Review Boards, set up a mechanism to certify local governments to carry out the purposes of the NHRA, assisted Native American tribes to preserve their cultural heritage, and created the Advisory Council on Historic Preservation (ACHP).

Section 106 of the NHPA states that federal agencies with direct and indirect jurisdiction over federally funded, assisted, or licensed undertakings (projects) must take into account the effect of the undertaking on any historic property that is included in, or is eligible for inclusion in, the NRHP and that the ACHP must be afforded an opportunity to comment through a process outlined in the ACHP regulations in 36 Code of Federal Regulations (CFR) Part 800, on such undertakings. For the proposed action, there is Federal involvement; therefore, the Section 106 compliance is required as part of the environmental review process.

Affected Environment

Historic Resources

An Architectural Resources Technical Report (ARTR) for the Wilshire BRT Project was prepared in January 2010 to fulfill the requirements of the Section 106 review of the proposed action (Appendix D). As part of the ARTR, a records search and Cultural Resources Survey were completed for the project area. As a result of consultation with the California State Historic

Preservation Officer (SHPO) in April 2008, for the purposes of the historic resources survey, only those areas where changes would occur to curbs and sidewalks were included in the Area of Potential Effect (APE)(included in Appendix C of the ARTR). This area is bounded by Comstock Avenue to the east and Malcolm Avenue to the west and continues between Bonsall Avenue to the east to Barrington Avenue to the west, extending one parcel on each side of Wilshire Boulevard, excluding the north side of Wilshire between Bonsall Avenue and Federal Avenue.¹³⁵

National, state, and local inventories of architectural and historic resources were reviewed to determine the location of previously documented historic and architectural resources proximate to the project corridor. These included standard sources of information, such as the National Register of Historic Places (National Register) and the California Register of Historical Resources (California Register).

The Cultural Resources Survey identified 21 architectural resources in the APE that required application of the National Register Criteria for Evaluation. Of the 21 resources, 6 were determined eligible for listing on the National Register during the current survey process, as shown in Table 7-1. These properties consist of 1250 Federal Avenue, 10375 Wilshire Boulevard, 10401 Wilshire Boulevard, 10416 Wilshire Boulevard, 10497 Wilshire Boulevard, and 10822 Wilshire Boulevard. These properties were found to be eligible for the National Register under Criterion C at a local level of significance. In addition, two previously recorded historic properties are located in the APE, Chateau Colline at 10335 Wilshire Boulevard, which was listed in the National Register on May 22, 2003, and the Veterans Administration (VA) Medical Center, which was determined eligible for the National Register as a historic district on November 11, 1980. As a result, both of these properties are also listed on the California Register.

Archaeological Resources

An Archaeological Survey Report (ASR) for the Wilshire BRT Project was conducted to determine whether prehistoric or historic resources are present along the Wilshire corridor (Appendix E). As part of the ASR, a records search was conducted at the South Central Coastal Information Center at California State University, Fullerton. This search determined that portions of the project corridor have been surveyed previously, and a total of 81 cultural resource sites, which include prehistoric sites, historic sites, and structures, have been recorded within the boundaries of the project route. The Native American Heritage Commission (NAHC) was also contacted. Subsequently, the NAHC provided a list of five Native American contacts in Los Angeles County. Letters describing the proposed action and indicating the project location were sent to the five Native American contacts.

¹³⁵ The APE does not include the north side of Wilshire Boulevard between Bonsall Avenue and Federal Avenue; therefore, the Veterans Administration land that includes the Wadsworth Theater and Chapel were not surveyed.

Table 7-1: Properties Listed in or Determined Eligible for Listing in the National Register of Historic Places

Property Name	Address/Location	Listed in the National Register?	Details
1. Chateau Colline	10335 Wilshire Bl.	Yes	Recorded as National Register item #03000426 on May 22, 2003.
2. Wilshire Terrace Luxury Apartments	10375 Wilshire Bl.	Potentially Eligible	Potentially eligible for the National Register under Criterion C at a local level of significance (pending State Historic Preservation Officer [SHPO] consultation).
3. 10401 Wilshire Apartments	10401 Wilshire Bl.	Potentially Eligible	Potentially eligible for the National Register under Criterion C at a local level of significance (pending SHPO consultation).
4. Sinai Temple	10416 Wilshire Bl.	Potentially Eligible	Potentially eligible for the National Register under Criterion C at a local level of significance (pending SHPO consultation).
5. Westwood United Methodist Church	10497 Wilshire Bl.	Potentially Eligible	Potentially eligible for the National Register under Criterion C at a local level of significance (pending SHPO consultation).
6. Westwood Presbyterian Church	10822 Wilshire Bl.	Potentially Eligible	Potentially eligible for the National Register under Criterion C at a local level of significance (pending SHPO consultation).
7. Veterans Administration Medical Center	11301 Wilshire Bl.	Yes	Determined eligible for the National Register as a historic district on November 11, 1980. It is recorded as National Register item #65001079
8. U.S. Army Reserve Center/Sadao Munemori Hall	1250 Federal Ave.	Potentially Eligible	Potentially eligible for the National Register under Criterion C at a local level of significance (pending SHPO consultation).

Source: ICF, 2010; National Register, 2010.

An archaeological field survey of the project corridor was conducted in October 2008. The archaeological field survey did not result in the identification of any superficial prehistoric or historic archaeological sites or features. However, there are three pre-recorded sites located in the areas where construction-related activities are proposed. One of these sites is the La Brea Tar Pits. Even though the project corridor is heavily urbanized, buried cultural resources have been identified during previous construction ground-disturbing activities in proximity to the project corridor. Consequently, there is the potential for buried cultural resource deposits to exist beneath previously disturbed and developed land surfaces.

Paleontological Resources

As part of the ASR (Appendix E), a paleontological assessment report and a Los Angeles County Museum of Natural History records search were completed, which identified the project corridor and vicinity as a highly sensitive paleontological area. Even though the proposed corridor is heavily

urbanized, buried cultural and paleontological resources have been identified in the vicinity of the project corridor. Therefore, there is the potential for buried cultural and paleontological deposits to exist beneath previously disturbed and developed land surfaces.

Impacts

No Project Alternative

Under the No Project Alternative, the project corridor would remain in its current state. As no construction would occur under the No Project Alternative, there would be no potential disturbance of historic or cultural resources.

No adverse effects would occur related to cultural resources under the No Project Alternative.

Proposed Action

Historic Resources

The proposed action would convert existing curb lanes on Wilshire Boulevard to bus and right-turn only operation in the peak periods on weekdays. To implement the proposed action, curb lanes would be repaired or reconstructed, where necessary, and restriped and signed as peak period bus lanes. In other areas, curbside bus lanes would be added as new lanes to Wilshire Boulevard by widening, jut-out removal, or restriping. Although eight buildings within the APE are historic properties under Section 106, the proposed action would not include structures or other elements that could adversely affect these resources. In addition, based on field observations and review of the proposed changes to the sidewalks adjacent to the eight historic properties, none of the characteristics that qualify those historic properties for inclusion in the National Register would be affected. As a result, there would be no adverse effects on historic resources.

Archaeological and Paleontological Resources

The bulk of the project involves activities such as sidewalk removal, pavement replacement, or restriping, which are not ground disturbing. For purposes of the proposed action, pavement replacement is not considered a ground-disturbing activity. In those instances where sidewalk widths would be reduced, roadway base or curb lanes reconstructed, or turn pockets altered, the projected depths of subsurface work are anticipated to be very shallow. Due to previous complications of encountering tar seepage during construction related activities in portions of the project corridor, the ground disturbance proposed for the project is not anticipated to go beyond two feet below the surface. Given that the shallowest depth where archaeological and paleontological resources may be encountered is six feet¹³⁶, it is anticipated that the proposed action would result in no direct or indirect impacts on

¹³⁶ ICF International, Archaeological Survey Report for the Wilshire Bus Rapid Transit Project Los Angeles, California, April 2010.

archaeological and paleontological resources. Therefore, there would be no adverse effects on archaeological and paleontological resources.

No adverse effects would occur related to cultural resources under the proposed action.

Alternative A – Truncated Project Without Jut-out Removal

Similar to the proposed action, this alternative would require construction activities, although within a smaller project area. However, as with the proposed action, the bulk of the project involves activities such as sidewalk removal, pavement replacement, or restriping, which are not ground disturbing. For purposes of the proposed action, pavement replacement is not considered a ground-disturbing activity. In those instances where sidewalk widths would be reduced or turn pockets altered, the projected depths of subsurface work are anticipated to be very shallow. Due to previous complications of encountering tar seepage during construction related activities in portions of the project corridor, the ground disturbance proposed for this alternative is not anticipated to go beyond two feet below the surface. Given that the shallowest depth where archaeological and paleontological resources may be encountered is six feet¹³⁷, it is anticipated that this alternative would result in no direct or indirect impacts on archaeological and paleontological resources. Therefore, there would be no adverse effects on archaeological and paleontological resources.

No adverse effects would occur related to cultural resources under Alternative A.

Measures to Minimize Harm

No Project Alternative

Under the No Project Alternative, the project corridor would remain in its current state, and no historic, archaeological, paleontological or other cultural resource impacts would occur. Therefore, no mitigation measures are required.

Proposed Action

Historic Resources

No effects on historic properties or historical resources were identified; therefore, no mitigation measures are required.

Archaeological and Paleontological Resources

The ICF survey did not result in the identification of any surficial prehistoric or historic archaeological sites or features. For purposes of this project, pavement replacement is not considered a ground-disturbing activity. In addition, due to previous complications of encountering tar seepage during

¹³⁷ *Ibid.*

construction related activities in this area, the proposed ground disturbance for this project is not anticipated to go beyond two feet below the surface. Therefore, no adverse effects related to archaeological or paleontological resources would be anticipated to occur, and no mitigation measures are required.

Alternative A – Truncated Project Without Jut-out Removal

Similar to the proposed action, no adverse effects related to archaeological or paleontological resources would be anticipated to occur, and no mitigation measures are required.

Cumulative Impacts

No Project Alternative

Under the No Project Alternative, the project corridor would remain in its current state, and no cultural resource impacts would occur.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

No historical resources were identified within the APE established for the project that would be adversely affected by the implementation of the new bus lanes. Therefore, the proposed action would not contribute to any cumulative impacts to historical resources in the proposed corridor.

Similarly, due to previous complications of encountering tar seepage during construction related activities in portions of the project corridor, the ground disturbance proposed for the project is not anticipated to go beyond two feet below the surface. Given that the shallowest depth where archaeological and paleontological resources may be encountered is six feet, it is anticipated that the proposed action would result in no direct or indirect impacts on archaeological and paleontological resources. Therefore, there would be no adverse effects on archaeological and paleontological resources. Accordingly, the proposed action would not contribute to any cumulative impacts to archaeological and paleontological resources in the proposed corridor.

No cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-out Removal

No historical resources were identified within the APE established for this alternative that would be adversely affected by the implementation of the new bus lanes. Therefore, this alternative would not contribute to any cumulative impacts to historical resources in the proposed corridor.

Similarly, due to previous complications of encountering tar seepage during construction related activities in portions of the project corridor, the ground disturbance proposed for this alternative is not anticipated to go beyond two feet below the surface. Given that the shallowest depth where archaeological and paleontological resources may be encountered is six feet, it is anticipated that this alternative would result in no direct or indirect impacts on archaeological and paleontological resources. Therefore, there would be no adverse effects on archaeological and paleontological resources. Accordingly, this alternative would not contribute to any cumulative impacts to archaeological and paleontological resources in the proposed corridor.

No cumulatively adverse effects would occur under Alternative A.

7.2.8 Visual Quality

Affected Environment

Wilshire Boulevard stretches from downtown Los Angeles to the City of Santa Monica and passes through or near many major activity centers and destinations and generally consists of low to high density commercial development, as well as both low and high density multi-family neighborhoods. Wilshire Boulevard contains a variety of architecture styles that contribute to the character of the project corridor. The existing visual characteristics of the project corridor are discussed in detail below.

Views and Vistas

The corridor contains significant far-off views of the Hollywood Hills, the Santa Monica Mountains, and the downtown skyline. In general, the Wilshire corridor is fronted by commercial and retail uses and some medium- to high-density residential buildings, including several new developments along Wilshire Boulevard near Highland Avenue, between La Brea Avenue and Fairfax Avenue, and near Vermont Avenue and Western Avenue. For a more detailed description of land uses, see Table 4.5-1 (Description of Land Uses, Activity Centers, and Community Facilities) in Section 4.5 of this document.

Visual Character

Visual character and resource assessment for FTA projects typically follow the Visual Resource Inventory Manual published by the U.S. Department of the Interior, Bureau of Land Management. Impacts are determined by how visually sensitive the study area and the public may be to new development. In general, the Wilshire corridor is located in a highly urbanized area of Los Angeles and it is fronted by commercial and retail uses and some low to medium residential buildings. Sensitive land uses include the mid- and high-rise towers located along Wilshire Boulevard between the Los Angeles Country Club and Malcolm Avenue along Wilshire Boulevard, and portions of Wilshire Boulevard in the Wilshire Community Plan Area, which contains interspersed multi-family residential areas and recreational facilities, such as

Museum Row, Hancock Park, and La Brea Tar Pits. These sensitive land uses, particularly those in the Westwood area, have views from various angles of the six historic resources that were determined eligible for listing on the National Register, Chateau Colline (listed on the National Register), and the VA Medical Center (previously determined eligible on the National Register as a historic district). In addition to being visible to these sensitive land uses, these resources are also currently visible from other areas along the corridor and contribute significantly to the visual character of the corridor. Observation of the project corridor suggests that these resources, along with other architecturally, culturally, and socially significant structures and places, are heavily utilized by the public and are likely of high public interest. Therefore, the project corridor has a high visual sensitivity level.

Light and Glare

The Wilshire corridor is located in an urban setting adjacent to retail commercial, office commercial, public facilities, and residential uses that emit relatively high levels of ambient lighting. In addition, the project corridor contains standard street lights that are located within the sidewalks on both sides of Wilshire Boulevard. Glare is a common phenomenon due mainly to the occurrence of a high number of days per year with direct sunlight and the highly urbanized nature of the region, which result in a large concentration of potentially reflective surfaces. Most glare in the project corridor is generated by reflective materials on the surrounding mid- to high-rise buildings and glare from vehicles passing along the Wilshire corridor and on the surrounding major north/south streets. The closest light and glare sensitive uses to the project corridor include the mid- and high-rise towers located along Wilshire Boulevard between the Los Angeles Country Club and Malcolm Avenue and portions of Wilshire Boulevard in the Wilshire Community Plan Area, which contains interspersed multi-family residential areas and recreational facilities.

Shadows

The prevalence of shadows is directly attributable to building heights, the angle of the sun and the location of a project relative to off-site shadow sensitive land uses. Shadow sensitive uses include routinely useable outdoor spaces associated with residential, recreational, or institutional land uses; commercial uses, such as pedestrian-oriented outdoor spaces or restaurants with outdoor seating areas; nurseries; and existing solar collectors. Currently, land uses along the Wilshire corridor cast shadows on other surrounding land uses and on the project corridor itself.

Impacts

No Project Alternative

Under the No Project Alternative, the improvements under the proposed action would not be implemented. No construction activities would take place, no street facilities would be altered, and, therefore, no visual impacts would occur.

No adverse effects related to visual resources would occur under the No Project Alternative.

Proposed Action

The proposed action would convert existing curb lanes on Wilshire Boulevard to bus and right-turn only operation in the peak periods on weekdays. To implement the proposed action, curb lanes would be repaired or reconstructed, where necessary, and restriped and signed as peak period bus lanes. In other areas, curbside bus lanes would be added as new lanes to Wilshire Boulevard by widening or removing jut-outs. The proposed action would not include structures or other elements that would potentially obstruct views of far-off scenic features or structures and places that contribute to the visual character of the corridor, such as the potentially historic or historically significant cultural resources.

The proposed removal of jut-outs along the segment of the project corridor between Comstock Avenue and Malcolm Avenue, the extension of the eastbound left-turn pocket at Sepulveda Boulevard and the widening of Wilshire Boulevard between Bonsall and Federal Avenues, which would affect the existing median, would result in the removal of a number of street trees. However, a more detailed landscape plan would be developed in the Preliminary Engineering phase to identify the trees to be displaced and the location and number of new trees to be replanted along this segment of Wilshire Boulevard. The proposed improvements would comply with all local construction standards and guidelines, including design guidelines for roadways, streetscape, and landscaping. As such, with the inclusion of **Mitigation Measure A-1** below, the proposed action would not adversely affect the visual integrity of the surrounding neighborhood and streetscape/landscape along Wilshire Boulevard.

The proposed action would not result in a substantial new amount of lighting on Wilshire Boulevard. Some light posts may need to be replaced as a result of curb improvements on Wilshire Boulevard between Comstock Avenue and Malcolm Avenue. However, new lighting associated with the proposed action would be installed in compliance with all applicable lighting standards to contribute minimally to the visual contrast of the proposed action with surrounding land uses during the nighttime hours. In addition, because the proposed action would mainly involve the street rehabilitation of Wilshire Boulevard and the striping of new bus lanes, the proposed action would result in minimal, if any, shadow effects.

*Under the proposed action, with the incorporation of the identified mitigation measure (**Mitigation Measure A-1**), no substantial adverse effects are anticipated related to the visual character, integrity, and quality of the project corridor. No adverse effects would occur related to light, glare and shadows.*

Alternative A – Truncated Project Without Jut-out Removal

Similar to the proposed action, this alternative would not include structures or other elements that would potentially obstruct views of far-off scenic

features or structures and places that contribute to the visual character of the corridor, such as the potentially historic or historically significant cultural resources. The jut-outs would not be removed between Comstock Avenue and Malcolm Avenue, and, therefore, no trees would be removed in this area. However, Alternative A would also involve the extension of the eastbound left-turn pocket at Sepulveda Boulevard and street widening between Bonsall and Federal Avenues, which would affect the existing median, resulting in the removal of a number of small jacaranda trees. This alternative would comply with all local construction standards and guidelines, including design guidelines for roadways, streetscape, and landscaping, and as such, would not adversely affect the visual integrity of the surrounding neighborhood and streetscape/landscape along Wilshire Boulevard. Similar to the proposed action, this alternative would not result in a substantial new amount of lighting, or shadow effects, along Wilshire Boulevard. Because this alternative does not include the removal of jut-outs and street trees between Comstock Avenue and Malcolm Avenue, fewer visual changes would occur. Therefore, no adverse visual effects are anticipated.

Under Alternative A, no adverse effects are anticipated related to the visual character, integrity, and quality of the project corridor. Furthermore, no adverse effects would occur related to light, glare and shadows.

Measures to Minimize Harm

No Project Alternative

No visual changes would occur, therefore, no mitigation measures are necessary under the No Project Alternative.

Proposed Action

In order to ensure that adverse impacts related to tree removal are minimized, the following mitigation measure is recommended:

- A-1 Wherever feasible, trees within the existing jut-outs shall be preserved or relocated and incorporated into the landscape plan where space permits.

Alternative A – Truncated Project Without Jut-out Removal

No adverse visual effects would occur; therefore, no mitigation measures are required under Alternative A.

Cumulative Impacts

No Project Alternative

No visual changes would occur; therefore, no adverse cumulative impacts would occur under the No Project Alternative.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

The proposed Wilshire BRT Project would not result in the obstruction or modification of background views of the Hollywood Hills, Santa Monica Mountains, or the downtown skyline or the degradation of the visual quality of the surrounding communities along the project corridor. Therefore, the proposed action would not contribute to any cumulative impacts related to visual quality in the project corridor. The implementation of mitigation measure A-1 above will ensure that no adverse cumulative visual impacts occur due to the loss of landscaping between Comstock Avenue and Malcolm Avenue. BRT operations are already occurring along the project alignment. The proposed action would create peak period bus lanes to accommodate existing buses. Accordingly, no adverse changes to the visual character or the visual quality of the Wilshire corridor would occur either individually or cumulatively.

No cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-out Removal

Similar to the proposed action, this alternative would not result in new structures that would obstruct existing vistas or degrade the visual quality of the surrounding communities along the project corridor. No existing trees between Comstock Avenue and Malcolm Avenue would be removed or affected under this alternative. BRT operations are already occurring along the project alignment. This alternative would also create peak period bus lanes to accommodate existing buses although within a smaller area than for the proposed action. Accordingly, no adverse changes to the visual character or the visual quality of the Wilshire corridor would occur either individually or cumulatively.

No cumulatively adverse effects would occur under Alternative A.

7.2.9 Noise

Affected Environment

The project site is located in a developed, urban area. Existing noise levels in the project vicinity are generally high due to noise from vehicles on Wilshire Boulevard. There are several sensitive receptors, such as residences, schools, and other sensitive uses, along each side of Wilshire Boulevard.

Measurements of existing noise levels were made on December 4, 2009. Short-term noise measurements (15 minutes) were made at sites ST-1 through ST-8. See Figures 4.4-3 and 4.4-4 (in Section 4.4 of this document) for the specific locations of these sites.

Table 4.4-1 (in Section 4.4 of this document) shows a summary of the noise measurement results. The short-term measurement results shown in Table 4.4-1 include the measured L_{eq} and the maximum and minimum 1-second L_{eq} . The aim of the short-term measurements was to obtain the noise levels from vehicular traffic in the area at representative sensitive receptors adjacent to the Wilshire Boulevard corridor.

The measured L_{eq} for the short-term measurement sites ranges from 63 dBA at ST-6 to 76 dBA at ST-8. Vehicles on Wilshire Boulevard are the main source of noise at the measurement sites.

Impacts

Operational Noise

No Project Alternative

Under the No Project Alternative, proposed improvements to the Wilshire corridor included under the proposed action would not be implemented. No change to existing bus operation or to existing operational noise from traffic on Wilshire Boulevard is expected to occur.

No adverse effects related to operational noise would occur under the No Project Alternative.

Proposed Action

Figure 3-2 of FTA's Transit Noise and Vibration Impact Assessment, FTA's guidance manual for predicting and assessing noise and vibration impacts of proposed mass transit projects, shows the noise impact criteria for Category 1 and 2 land uses (the most noise-sensitive land use categories) in terms of the allowable increase in the cumulative noise exposure. The project corridor has an average existing noise exposure of approximately 71-72 dBA. According to FTA's guidance, a noise exposure increase as a result of project operations would have to be of 1 dBA or below in order to have no impact on adjacent sensitive receptors.

Noise from motor vehicle traffic associated with the proposed action was analyzed using the data from the project's traffic study (Appendix B).¹³⁸ The worst-case scenario with regards to traffic volumes were input into the Federal Highway Administration's (FHWA) TNM[®] model. Average daily traffic (ADT) volumes for the Existing Year, Opening Year Without Project, Opening Year With Project, Horizon Year Without Project, and Horizon Year With Project scenarios were used to predict the changes in traffic noise at selected roadway segments. According to the noise modeling results, as presented in Table 4.4-9 in Section 4.4 of this document), project noise levels in both the opening year and horizon year are predicted to decrease from what they would be without the proposed action at most locations, and increase only slightly, and by no more than 1 dBA at other locations.

¹³⁸ Iteris. 2010. Wilshire Boulevard Bus Rapid Transit Project Traffic Impact Analysis.

Accordingly, the proposed action would not result in long-term adverse traffic noise effects on the surrounding area.

No adverse effects related to operational noise would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, noise from motor vehicle traffic associated with Alternative A was also analyzed using the data from the project's traffic study (Appendix B).¹³⁹ The worst-case scenario with regards to traffic volumes were input into the FHWA TNM[®] model. Operational noise impacts anticipated under this alternative would not be considered adverse. This alternative would include mobility improvements along 8.7 miles of Wilshire Boulevard. These improvements would consist of converting existing curb lanes to dedicated weekday peak period bus lanes in both the eastbound and westbound directions.

This alternative would be truncated at S. Park View Street and would not convert existing curb lanes into bus lanes east to Valencia Street. Alternative A would eliminate the bus lane from approximately 300 feet east of Veteran Avenue to the I-405 northbound ramps and also require reconstruction and resurfacing of an additional 1.8 miles of existing curb lanes between Western Avenue and San Vicente Boulevard and between the western boundary of the City of Beverly Hills and Westholme Avenue. In addition, jut-out removal between Comstock Avenue and Malcolm Avenue would not occur under this alternative. According to the noise modeling results, as shown in Table 5-11 (in Chapter 5.0 of this document), increases in operational traffic noise are not expected to exceed 1 dBA. Therefore, no adverse effect would occur as a result of operational noise for Alternative A.

No adverse effects related to operational noise would occur under Alternative A.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur; therefore, no mitigation measures are required.

Proposed Action

No adverse effects would occur; therefore, no mitigation measures are required.

Alternative A – Truncated Project Without Jut-Out Removal

No adverse effects would occur; therefore, no mitigation measures are required.

¹³⁹ *Ibid.*

Cumulative Impacts

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no cumulative adverse effects would occur.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

The project corridor is located in a highly developed area of the City of Los Angeles, with the segment between Veteran Avenue and Federal Avenue within the County of Los Angeles. Ambient noise levels along the project corridor and in the project vicinity are dominated by traffic noise on Wilshire Boulevard. This condition would continue to be the case without or with implementation of the proposed action. As mentioned above, project noise levels in both the opening year and horizon year are predicted to decrease at most locations and increase only slightly at other locations. The proposed action would not create substantial noise impacts to alter the existing ambient noise levels in the surrounding areas when combined with existing uses. Therefore, no cumulative adverse effects regarding noise would occur as a result of the proposed action.

No cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, Alternative A would not create substantial noise impacts to alter the existing ambient noise levels in the surrounding areas when combined with existing uses. Therefore, adverse effects would not occur either individually or cumulatively under Alternative A.

No cumulatively adverse effects would occur under Alternative A.

7.2.10 Vibration

Affected Environment

Similar to the environmental setting for noise, the vibration environment is dominated by traffic-related vibration from nearby sources. Heavy trucks or other vehicles can generate groundborne vibration of varying magnitude, depending on vehicle type, weight, pavement and geological conditions. Vibration levels were not readily perceptible at noise/vibration-sensitive land uses in the project vicinity.

Impacts

No Project Alternative

Under the No Project Alternative, proposed improvements to the Wilshire corridor included under the proposed action would not be implemented. No change to existing bus operation or to existing operational groundborne vibration resulting from traffic on Wilshire Boulevard is expected to occur.

No adverse effects related to operational vibration would occur.

Proposed Action

According to FTA's Vibration Screening Procedure, included as Chapter 9 of the 2006 Traffic Noise and Vibration Impact Assessment, for projects that involve rubber-tire vehicles, vibration impact is unlikely except in unusual situations. The following three specific factors in the Vibration Screening Process Flow Chart, shown in Figure 7-1, should be checked to determine if there is potential vibration impact from bus projects or any other projects that involve rubber-tire vehicles:

1. Will there be expansion joints, speed bumps, or other design features that result in unevenness in the road surface near vibration-sensitive buildings? Such irregularities can result in perceptible ground-borne vibration at distances up to 75 feet away.
2. Will buses, trucks or other heavy vehicles be operating close to a sensitive building? Research using electron microscopes and manufacturing of computer chips are examples of vibration-sensitive activities.
3. Does the project include operation of vehicles inside or directly underneath buildings that are vibration-sensitive? Special considerations are often required for shared-use facilities such as a bus station located inside an office building complex.

As demonstrated by the Vibration Screening Process Flow Chart, including the three specific factors listed above, no vibration impact is likely to occur as a result of the proposed action. One of the project elements involves the reconstruction and smoothing of the roadway surface, where it is deteriorated, resulting in holes, dips, and bumps. By smoothing these irregular portions of Wilshire Boulevard, the proposed action would result in a benefit due to the net reduction in vibration from roadway surface irregularities affecting buses along the project corridor. Therefore, no adverse effects would occur during operation of the proposed action.

No adverse effects related to operational vibration would occur.

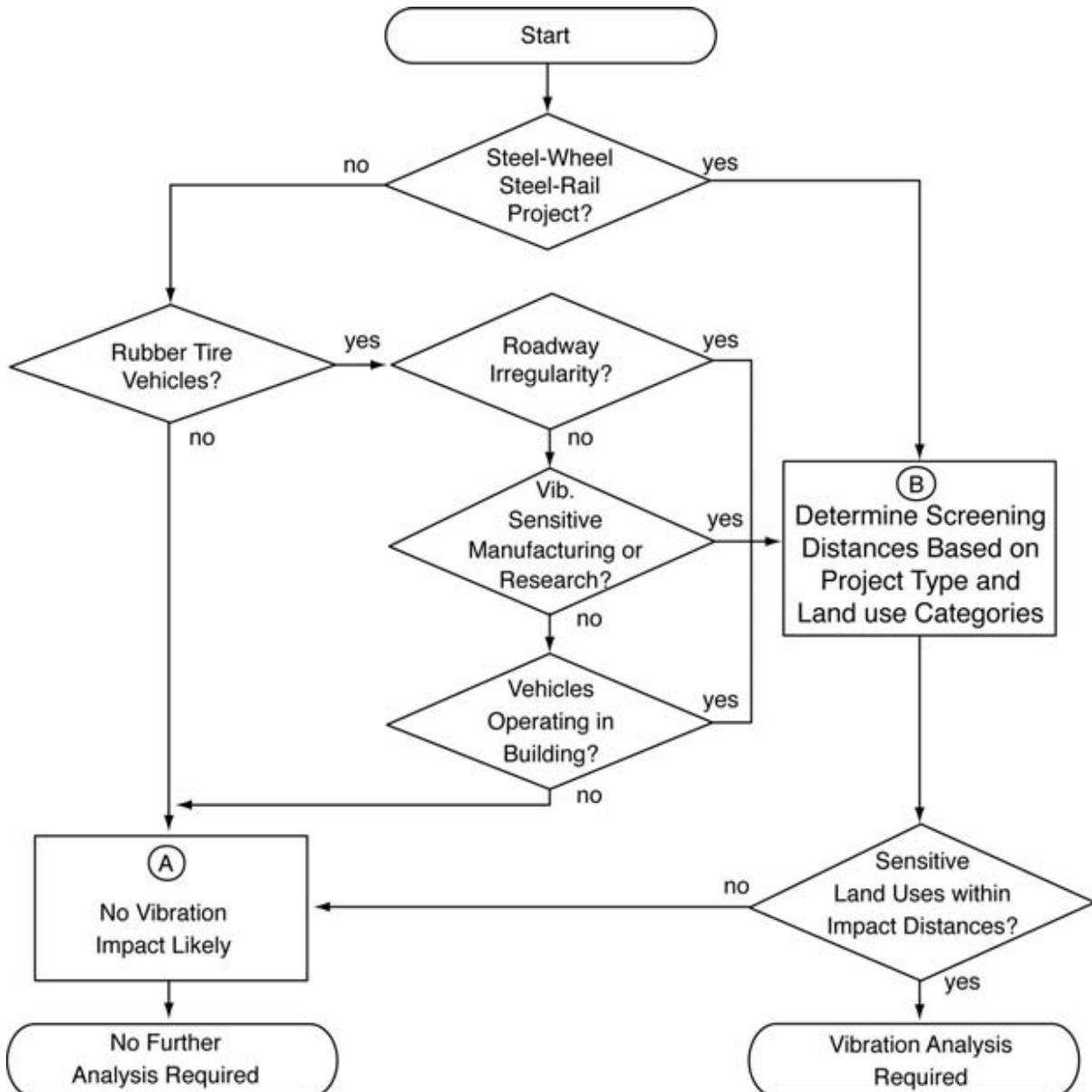
Alternative A – Truncated Project Without Jut-Out Removal

Operational impacts with regards to vibration in Alternative A are similar to those under the proposed action. As demonstrated by the Vibration

Screening Process Flow Chart (Figure 7-1), no vibration impact is likely to occur as a result of Alternative A. This alternative also involves the reconstruction and smoothing of the roadway surface, where it is deteriorated, resulting in holes, dips, and bumps. By smoothing these irregular portions of Wilshire Boulevard, Alternative A would result in a benefit due to the net reduction in vibration from roadway surface irregularities affecting buses along the project corridor.

No adverse effects related to operational vibration would occur under Alternative A.

Figure 7-1. Flow Chart of Vibration Screening Process



Source: FTA. Traffic Noise and Vibration Impact Assessment, 2006.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur; therefore, no mitigation measures are required.

Proposed Action

No adverse effects would occur; therefore, no mitigation measures are required.

Alternative A – Truncated Project Without Jut-Out Removal

No adverse effects would occur; therefore, no mitigation measures are required.

Cumulative Impacts

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no cumulative adverse effects would occur.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

Vibration levels are not readily perceptible at noise/vibration-sensitive land uses in the project vicinity. This condition would continue to be the case without or with implementation of the proposed action. The proposed action would not create vibration impacts to alter the existing ambient vibration levels in the surrounding areas when combined with existing uses. Therefore, no cumulative adverse effects regarding vibration impacts would occur as a result of the proposed action.

No cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, Alternative A would not create vibration impacts to alter the existing ambient vibration levels in the surrounding areas when combined with existing uses. Therefore, adverse effects would not occur either individually or cumulatively under Alternative A.

No cumulatively adverse effects would occur under Alternative A.

7.2.11 Land Acquisition, Displacement, and Relocation

Affected Environment

As discussed above, the Wilshire corridor is a densely developed corridor with an abundance of commercial land uses. In general, the majority of land uses adjacent to the Wilshire corridor consist of parcels zoned for office, retail, commercial, residential or institutional uses (e.g., museums). Commercial development and some multi-family residences front both sides of the project alignment and the intersecting north/south streets.

Impacts

No Project Alternative

Under the No Project Alternative, proposed improvements to 9.9 miles of the Wilshire corridor included under the proposed action would not be implemented.

No adverse impacts related to land acquisition, displacement, or relocation would occur under the No Project Alternative.

Proposed Action

The Wilshire BRT Project would be implemented within existing City and County public rights-of-way. The proposed action would not require the acquisition of any properties or result in the displacement of land uses currently in the project corridor. Therefore, no impacts related to land acquisition, displacement and relocation would occur as a result of the proposed action.

No adverse impacts related to land acquisition, displacement, or relocation would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, this alternative would be implemented within existing City and County public rights-of-way. Alternative A would not require the acquisition of any properties or result in the displacement of land uses currently in the project area. Therefore, no impacts related to land acquisition, displacement and relocation would occur as a result of Alternative A.

No adverse impacts related to land acquisition, displacement, or relocation would occur under Alternative A.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur; therefore, no mitigation measures are required.

Proposed Action

No adverse effects would occur; therefore, no mitigation measures are required.

Alternative A – Truncated Project Without Jut-Out Removal

No adverse effects would occur; therefore, no mitigation measures are required.

Cumulative Impacts

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no cumulative adverse effects would occur.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

The proposed action would not require the acquisition of any properties or result in the displacement of land uses currently in the project corridor. Therefore, the proposed action would not contribute to any cumulative impacts related to land acquisition, displacement and relocation of businesses and residences in the project alignment. BRT operations are already occurring along the project alignment. The proposed action would create peak period bus lanes to accommodate existing buses. Accordingly, no adverse effects related to land acquisition, displacement and relocation would occur either individually or cumulatively.

No cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, no adverse effects related to land acquisition, displacement and relocation would occur either individually or cumulatively.

No cumulatively adverse effects would occur under Alternative A.

7.2.12 Hazardous Materials

Affected Environment

Properties along the Wilshire corridor are predominantly developed with commercial and residential land uses. Some commercial development may contain, may have formerly contained hazardous materials, or may have potentially contributed to soil and/or groundwater contamination. Certain chemical and physical properties of a substance may cause it to be considered hazardous. As defined by the California Code of Regulations (CCR), Title 22, Section 66084, a “hazardous material” is a “substance or combination of substances which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or (2) pose a substantial present or potential hazards to human health, or environment when improperly treated, stored, transported or disposed of or otherwise managed.”

According to the California Health and Safety Code, Section 25124, a “hazardous waste” is any hazardous material that is abandoned, discarded or in storage prior to recycling. For example, excavated soil containing hazardous materials would be a hazardous waste if the concentration of contaminants exceeded specific CCR Title 22 criteria.

A review of federal and state regulatory agency lists was conducted to determine if locations within the project corridor contain suspected hazardous waste sites. The California Environmental Protection Agency Office of Environmental Information has compiled a Hazardous Waste and Substances Sites List (Cortese list), which includes sites designated by the State Water Resources Control Board, the Integrated Waste Management Board, and the Department of Toxic Substances Control. The Cortese list was reviewed for any sites located within or in the vicinity of the project corridor, and no such sites were identified. However, a review of the list of Leaking Underground Storage Tanks (LUST) and other cleanup sites identified 12 sites that are located along the project corridor, as identified in Table 7-2.

The City of Los Angeles has designated a Methane Hazard Zone, which includes a segment of the proposed corridor, generally from La Brea Avenue on the east to San Vicente Boulevard on the west.¹⁴⁰

¹⁴⁰ LACMTA, *Final EIS/EIR for the Mid-City/Exposition LRT Project*, October 2005.

Table 7-2: List of Leaking Underground Storage Tanks and Other Cleanup Sites within the Wilshire Corridor

Address	Name	Status	Potential Contaminants of Concern	Potential Media Affected
12054 Wilshire Blvd.	Mobil #18-ldm (former)	Open - Remediation as of 10/16/2007	gasoline	Well used for drinking water supply
11666 Wilshire Blvd.	Mobil #18-484	Open - Remediation as of 11/8/2007	gasoline	Other groundwater (uses other than drinking water)
10375 Wilshire Blvd.	Wilshire Terrace	Open - Site Assessment as of 1/18/2008	diesel	Soil
9988 Wilshire Blvd.	Tosco - 76 Station #0703	Open - Site Assessment as of 8/8/2007	gasoline	Other groundwater (uses other than drinking water)
605 Whittier Dr.	Beverly Hills Unified School District	Open - Site Assessment as of 3/17/2008	heating oil/fuel oil	Other groundwater (uses other than drinking water)
9815 Wilshire Blvd.	Budget Rent-a-Car	Open - Site Assessment as of 2/26/2001	gasoline, waste oil / motor/ hydraulic/ lubricating	Under investigation
8567 Wilshire Blvd.	Mobil #18-Gwx (Former #11-Gwx)	Open - Site Assessment as of 1/15/2008	gasoline	Other groundwater (uses other than drinking water)
5034 Wilshire Blvd.	Highland Express Cleaners	Open - Site Assessment as of 4/16/2001	PCE	None specified
5020 Wilshire Blvd.	Tidewater Service Station (Former)	Open - Site Assessment as of 10/18/2000	other solvent or non-petroleum hydrocarbon	Other groundwater (uses other than drinking water)
4180 Wilshire Blvd.	Alright Parking Lot (Chevron Heritage #21-1315)	Open - Remediation as of 4/8/2008	gasoline	Other groundwater (uses other than drinking water)
3807 Wilshire Blvd., #720	Korean Drycleaners and Laundry	Open - Site Assessment as of 10/1/1999	VOC	Aquifer used for drinking water supply
3201 Wilshire Blvd.	Shell Service Station	Open - Site Assessment as of 5/17/2006	gasoline	Other groundwater (uses other than drinking water)

Source: California Environmental Protection Agency, List of Leaking Underground Storage Tanks and Fiscal Year from Water Board GeoTracker Database, last updated October 21, 2008.

Impacts

No Project Alternative

Under the No Project Alternative, proposed improvements to 9.9 miles of the Wilshire corridor included under the proposed action would not be implemented. No construction activities would take place, and no existing structures, pavement, or soils would be disturbed.

No adverse effects related hazardous materials would occur under the No Project Alternative.

Proposed Action

The proposed action follows the Wilshire Boulevard right-of-way, which is lined on both sides by commercial and single/multi-family residential properties. Several sites along the Wilshire corridor are listed on the list of Leaking Underground Storage Tanks and other cleanup sites, as shown in Table 7-4. However, these sites are all located outside of the existing street right-of-way. The proposed action along the project corridor is divided into segments of non-construction related work, such as restriping of Wilshire Boulevard, and ground disturbing construction work, such as widening the boulevard and reconstruction of curb lanes. It is not expected that the proposed action would require the removal of significant (greater than 2 feet below the surface) soil or ground excavation. Based on the historic commercial use along the corridor, there is a potential that some soils and/or groundwater may be contaminated below ground surface. However, it is highly unlikely based on the extent of the excavation (2 feet or less) that any potentially contaminated soil and/or groundwater (usually encountered in major excavations) would be disturbed as a result of the proposed action. The proposed action would primarily involve repaving/resurfacing of existing curb lanes or removing portions of existing sidewalks to accommodate roadway widening along a small segment of Wilshire Boulevard west of I-405. During construction, all waste debris and spoils resulting from roadway repaving/resurfacing and sidewalk removal would be disposed of appropriately, in approved landfill facilities. The quantity, and potential risk of exposure to hazardous materials during this process would be relatively low, and all work and transportation of these materials would be performed in accordance with established construction BMPs and safety guidelines. It is not anticipated that hazardous materials or contaminated soils and/or groundwater would be encountered during construction, and no adverse impacts are anticipated. Similarly, it is not likely that methane gas would be encountered during project construction.

The Wilshire Bus Rapid Transit system is currently operational along the project corridor. The proposed action would create peak period bus lanes to accommodate existing buses. The buses that use this route are fueled by compressed natural gas (CNG) and also utilize various petroleum lubricants, solvents, and chemical cleaning agents. However, these materials are contained within the vehicles and typically do not leak onto the ground or into the surrounding environment. The proposed action would not introduce any

new hazardous materials as part of the operation of the proposed action, as the same types and numbers of buses would continue to operate along the Wilshire corridor. As such, project operation would not create any new impacts related to the use of hazardous materials beyond existing conditions.

No adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, this alternative would create peak period bus lanes to accommodate existing buses utilizing Wilshire Boulevard, within a smaller project area. The restriping and limited ground disturbance along the project corridor would be performed within the existing right-of-way and would involve disturbance of no more than 2 feet below surface of the existing street. As discussed under the proposed action, the buses that use this route are fueled by compressed natural gas (CNG) and also utilize various petroleum lubricants, solvents, and chemical cleaning agents. This alternative would not introduce any new hazardous materials as part of project operation as the same type and number of buses would continue to operate along the Wilshire corridor. As such, project operation under this alternative would not create any new impacts related to the use of hazardous materials beyond existing conditions. Therefore, no adverse effects would occur.

No adverse effects would occur under Alternative A.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur; therefore, no mitigation measures are required.

Proposed Action

No adverse effects would occur; therefore, no mitigation measures are required.

Alternative A – Truncated Project Without Jut-Out Removal

No adverse effects would occur; therefore, no mitigation measures are required.

Cumulative Impacts

No Project Alternative

No adverse effects would occur; therefore, no adverse cumulative impacts would occur under the No Project Alternative.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

Implementation of the proposed action would occur within the existing street right-of-way and would not require any major excavation (i.e., excavation would be limited to 2 feet or less) during construction. In addition, BRT operations are already occurring along the project corridor and would not result in any new impacts related to hazardous materials. Therefore, the proposed action would not contribute to any cumulative impacts related to hazardous materials use within the project corridor. No adverse effects related to hazardous materials use would occur either individually or cumulatively.

No cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-out Removal

Similar to the proposed action, implementation of Alternative A would occur within the existing street right-of-way and would not require any major excavation during construction. In addition, BRT operations are already occurring along the project alignment and would not result in any new impacts related to hazardous materials. Therefore, this alternative would not contribute to any cumulative impacts related to hazardous materials use within the project alignment. No adverse effects related to hazardous materials use would occur either individually or cumulatively.

No cumulatively adverse effects would occur under Alternative A.

7.2.13 Geology, Soils, and Seismicity

Affected Environment

The Wilshire corridor is located within a geological area called the Los Angeles Basin. The basin is surrounded by the Santa Monica Mountains, the Simi Hills, and the Santa Susana Mountains to the northwest, the San Gabriel Mountains to the northeast, and the Santa Ana Mountains, San Joaquin and Puente Hills to the east. The Pacific Ocean and the Palos Verdes Hills make up the southern border of the basin.

Faults

The Los Angeles Basin is an area known to be seismically active and there are a number of active and potentially active faults within the corridor area.¹⁴¹ According to a review of Alquist-Priolo Fault Hazard maps from the California Department of Conservation (Division of Mines and Geology), the Wilshire corridor is located within a fault zone. The nearest known earthquake fault

¹⁴¹ Active faults are believed to have moved between 11,000 and 2 million years ago.

mapped under the Alquist-Priolo Earthquake Fault Zoning Act is the Hollywood–Santa Monica Fault Zone, which encompasses the western half of the project corridor. The Hollywood-Santa Monica Fault is oriented in an east west direction and has a probable magnitude of a seismic event projected to range from 6.0 to 7.0 on the Richter Scale.

Seismicity

According to the California Seismic Safety Commission, all of California lies within either Seismic Zone 3 or 4. There are four zones in the United States, ranging from 1 to 4 (the higher the number, the higher the earthquake risk). A majority of the southern California region is in Seismic Zone 4, the highest hazard zone and, therefore, is susceptible to strong ground shaking and associated seismic hazards.¹⁴² Numerous regional and local faults are capable of producing severe earthquakes of magnitude 6.0 or greater.

Liquefaction

Liquefaction describes a phenomenon where cyclic stresses, which are produced by earthquake-induced ground motions, create excess pore pressures in soils lacking cohesion. As a result, the soils may acquire a high degree of mobility, which can lead to lateral spreading, consolidation and settlement of loose sediments, ground oscillations, flow failure, loss of bearing strength, ground fissuring, sand boils, and other damaging deformations. According to State geologic hazard maps, portions of the Wilshire corridor are located within a designated liquefaction zone.¹⁴³

Soil

The Wilshire corridor is located in a highly disturbed and developed area of Los Angeles, with very minor open space areas. In addition, Wilshire Boulevard is paved and maintained by the City of Los Angeles. According to the Natural Resource Conservation Service Report and General Soil Map for Los Angeles County, the Wilshire corridor is generally situated on young alluvium and young fan deposits from the Holocene and late Pleistocene era. In addition, some portions of the corridor are underlain by old fan deposits of the late to middle Pleistocene era.¹⁴⁴

¹⁴² California Seismic Safety Commission, Homeowner's Guide to Earthquake safety, Edition 2005, <http://www.seismic.ca.gov/>, accessed on November 8, 2008.

¹⁴³ State of California Department of Conservation, Seismic Hazards Zone Map Hollywood Quadrangle, March 25, 1999, available at: <http://www.conservation.ca.gov/cgs/shzp/Pages/Index.aspx>, accessed November 12, 2008.

¹⁴⁴ U.S. Department of the Interior U.S. Geological Survey. Aeromagnetic Map with Geology of the Los Angeles 30 x 60 Minute Quadrangle, Southern California By V.E. Langenheim, T.G. Hildenbrand, R.C. Jachens, R.H. Campbell, and R.F. Yerkes 2006

Impacts

No Project Alternative

Under the No Project Alternative, proposed improvements to 9.9 miles of the Wilshire corridor included under the proposed action would not be implemented. No construction activities would take place, no street facilities would be altered, and new impacts related to geology or seismicity would occur.

No adverse effects would occur related to geology or seismicity would occur under the No Project Alternative.

Proposed Action

The proposed action would not involve construction of new structures along the Wilshire corridor that would be exposed to seismic shaking, liquefaction, and soil erosion or ground subsidence. The Wilshire Bus Rapid Transit system is currently operational along the project alignment. The proposed action would involve improvements to an existing transportation corridor already used by buses and other vehicles and create peak period curbside bus lanes to accommodate existing buses. Accordingly, implementation of the proposed action would not create any new impacts related to geology, soils, and seismicity beyond existing conditions. Any activities associated with the development of the bus lanes (e.g., resurfacing, roadway widening, etc.) would be required to comply with the requirements of the Uniform Building Code, LACMTA Design Guidelines, the City of Los Angeles Municipal Code, and various City departments, including but not limited to, and specifications regarding seismic considerations for roadway construction, which will be enforced through plan review and inspections during construction. Compliance with these requirements would provide an acceptable level of safety and substantially lessen the effects of potential seismic-related ground failures.

The potential for soil erosion during the operation of the proposed action is low because the project alignment is currently entirely paved. During construction, all grading and excavation activities would incorporate BMPs that are designed to limit the potential erosion impacts to acceptable levels. By implementing standard engineering tools and practices, adverse effects related to geological hazards would be minimized.

No adverse effects would occur related to geology or seismicity would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, Alternative A would not involve construction of new structures along the Wilshire corridor that would be exposed to seismic shaking, liquefaction, and soil erosion or ground subsidence. Compliance with established building codes, design guidelines, and

municipal codes related to roadway construction would provide an acceptable level of safety and substantially lessen the effects of potential seismic-related ground failures. The potential for soil erosion during the operation of the project under this alternative is low because the project alignment is currently entirely paved. During construction, all grading and excavation activities would incorporate BMPs that are designed to limit the potential erosion impacts to acceptable levels. By implementing standard engineering tools and practices, adverse effects related to geological hazards would be minimized.

No adverse effects would occur related to geology or seismicity would occur under Alternative A.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur; therefore, no mitigation measures are required under the No Project Alternative.

Proposed Action

No adverse effects would occur; therefore, no mitigation measures are required for the proposed action. Nonetheless, the proposed action would comply with all established building codes, design guidelines, and municipal codes in order to lessen the effects of potential seismic-related ground failures. During construction, all grading and excavation activities would incorporate BMPs that are designed to limit the potential erosion impacts to acceptable levels.

Alternative A – Truncated Project Without Jut-out Removal

Similar to the proposed action, no adverse effects would occur under Alternative A. Therefore, no mitigation measures are required. Nonetheless, the project under this alternative would comply with all established building codes, design guidelines, and municipal codes in order to lessen the effects of potential seismic-related ground failures. During construction, all grading and excavation activities would incorporate BMPs that are designed to limit the potential erosion impacts to acceptable levels.

Cumulative Impacts

No Project Alternative

No adverse effects would occur; therefore, no adverse cumulative impacts would occur under the No Project Alternative.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

Geotechnical and seismic effects are site-specific. Implementation of the proposed action would have construction effects along segments of the project corridor but would not likely combine with other commercial or non-commercial building construction along the corridor to create a cumulative impact that would adversely affect the geological integrity or slope/ground stability of adjacent areas. In addition, BRT operations are already occurring along the project corridor and would not result in any new impacts related to geology, soils, and seismicity. Therefore, the proposed action would not contribute to any cumulative impacts within the project alignment. No adverse effects related to geology, soils, and seismicity would occur either individually or cumulatively.

No cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-out Removal Alternative

As discussed for the proposed action above, geotechnical and seismic effects are site-specific. Implementation of Alternative A would have construction effects along segments of the project alignment but would not likely combine with other commercial or non-commercial building construction along the corridor to create a cumulative impact that would adversely affect the geological integrity or slope/ground stability of adjacent areas. In addition, BRT operations are already occurring along the project alignment and would not result in any new impacts related to geology, soils, and seismicity. Therefore, Alternative A would not contribute to any cumulative impacts within the project alignment. No adverse effects related to geology, soils, and seismicity would occur either individually or cumulatively.

No cumulatively adverse effects would occur under Alternative A.

7.2.14 Community Disruption and Environmental Justice

Affected Environment

A Community Impact Assessment (CIA) Memorandum (see Appendix G) was prepared in April 2010 to evaluate community impacts as a result of the proposed Wilshire BRT Project. The concept of environmental justice is required under NEPA to analyze the extent to which minority or lower-income populations would be disproportionately impacted by a proposed action. The analysis was performed in compliance with the requirements of Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Lower-Income Populations (February 11, 1994). This provides that the Environmental Assessment (EA) addresses “disproportionately high and adverse human health or environmental effects” of Federally-funded projects “on minority populations and lower-income

populations” and that the project does not “have the effect of subjecting persons to discrimination because of their race, color, or national origin.”

Since the proposed action would occur along an extent of Wilshire Boulevard spanning a total of approximately nine miles, an in-depth demographic and housing study was not conducted. Instead, data for the community plan areas, County, and the City of Los Angeles were gathered to present a demographic profile of the communities. According to the 2000 Census Data, the City as a whole has a population of 3,694,820 people. Approximately 46.5 percent of the population was identified as Hispanic, 29.7 percent was identified as White, 10.9 percent was identified as African-American, and approximately 12.9 percent was identified as other.¹⁴⁵ On the other hand, the County of Los Angeles had a total population of 9,519,338. Out of this total population, approximately 44.6 percent of the population was Hispanic, 31.1 percent of the population was identified as White, 9.5 percent as African-American, and the remaining population of approximately 14.8 percent belonged to other racial/ethnic groups.

In comparison to the City and County, three of the five community plan areas along the project alignment are predominantly White. The Brentwood-Pacific Palisades Community Plan Area has a majority of White population, with about 87 percent of the population identifying themselves as White. In the Westwood Community Plan Area, approximately 63 percent of the population identified themselves as White, followed by about 23 percent of the population being Asian, and only 7 percent of the population identified themselves as Hispanic. In the West Los Angeles Community Plan Area, approximately 65 percent of the population identified themselves as White, followed by about 14 percent of the population being Asian, another 14 percent of population identified themselves as Hispanic, and the rest (7 percent) belonged to other racial/ethnic groups.

The Westlake and Wilshire Community Plan Areas are dominated by a minority population. Only about 4 percent of the population in Westlake and approximately 24 percent of the population in the Wilshire Community Plan Area identified themselves as White. Approximately 78 percent of the population in the Westlake Community Plan Area and 41 percent in the Wilshire Community Plan Area identified themselves as Hispanic. Population of Asian origin formed the next largest racial/ethnic group in both community plan areas.

In terms of low income population, approximately 18 percent and 22 percent of the County and City populations, respectively, are below the poverty line, as shown in Table 7-3. In comparison, the Brentwood-Pacific Palisades and West Los Angeles Community Plan Areas have a lower share of population below the poverty line. In the Westlake and Wilshire community plan areas, 53 percent and 32 percent of the respective populations live below poverty. Both these numbers are higher than County (17.9 percent) and City (22.1 percent) levels. The Westwood Community Plan Area has 22 percent of its

¹⁴⁵ Other includes people identified as Asian, Pacific Islander, Native American, and biracial.

population below the poverty line, which is comparable to the City of Los Angeles but higher than the County.¹⁴⁶

Table 7-3: Poverty Level

Jurisdiction/ Community Plan Area	Population for Whom Poverty Is Determined	Population below Poverty Line	% of Population below Poverty Line
County of Los Angeles	9,349,771	1,674,599	17.9
City of Los Angeles	3,622,606	801,050	22.1
Brentwood-Pacific Palisades	54,110	3,258	6.0
Westlake	106,711	56,138	52.6
Wilshire	292,059	92,735	31.8
Westwood	49,306	10,838	22.0
West Los Angeles	71,944	10,336	14.4

Source: U.S. Bureau of Census, 2000, Summary File (SF) 1; Los Angeles City Planning Department website, 2008.

Impacts

No Project Alternative

Under the No Project Alternative, the improvements under the proposed action would not be implemented. No alteration of the existing conditions would occur.

No adverse effects related to community disruption or environmental justice would occur under the No Project Alternative.

Proposed Action

The analysis conducted in the CIA (Appendix G) indicates that the proposed action would not result in any disproportionately high or adverse human health or environmental effects along the project corridor in any of the relevant environmental issue areas. Furthermore, during construction, disruptions to electricity, water, gas, and other public utilities would not be expected since project activities would not involve excavation or disturbance of subsurface facilities.

The proposed action would not require acquisition of any residential or commercial properties. Therefore, it is anticipated that the community, including businesses and residences, within and adjacent to the project corridor would remain intact. Construction activities would result in lane closures during street reconstruction/ resurfacing work. In order to reduce or avoid adverse effects to businesses and residential street access, traffic

¹⁴⁶ Personal correspondence with Tim Lindholm, LACMTA, Director of Capital Projects, Facilities-Operations, January 24, 2007.

detours and truck routes would be required during construction. Traffic disruptions would likely occur and result in adverse effects to local traffic circulation. **Mitigation Measures C-1** through **C-3** shall be implemented to ensure that traffic disruptions are reduced to a level that would not be considered adverse.

In addition, the impacts borne by the minority and low-income communities along the project corridor would be similar to and no greater than impacts borne by all populations and populations in non-minority communities. It should be noted that minority populations may rely on transit heavily and, therefore, transit improvements as a result of this project would be beneficial to these communities. The construction and operational impacts of the proposed action would not disproportionately impact minority or low-income groups, and, therefore, effects related to community disruption and environmental justice are not anticipated.

No adverse effects related to community disruption or environmental justice would occur under the proposed action.

Alternative A – Truncated Project Without Jut-out Removal Alternative

Similar to the proposed action, Alternative A would not result in any disproportionately high or adverse human health or environmental effects along the project corridor. Similar to the proposed project, the construction and operational impacts of Alternative A would not disproportionately impact minority or low-income groups, and, therefore, effects related to community disruption and environmental justice are not anticipated.

No adverse effects related to community disruption or environmental justice would occur under Alternative A.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur; therefore, no mitigation measures are required.

Proposed Action

No adverse effects would occur; therefore, no mitigation measures are required.

Alternative A – Truncated Project Without Jut-Out Removal

No adverse effects would occur; therefore, no mitigation measures are required.

Cumulative Impacts

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no cumulative adverse effects would occur.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

The proposed action would not adversely affect community integrity or result in community disruption or environmental justice impacts. Therefore, the proposed action would not contribute to any cumulatively adverse impacts on the communities along the project alignment. Increased efficiency and ridership of public transportation would potentially result in an improvement of regional transit connectivity, which may result in cumulatively beneficial impacts on pedestrian and commuter access within the greater Wilshire corridor.

No cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, no adverse effects related community disruption or environmental justice would occur under this alternative. Alternative A would involve a smaller project area and, therefore, would have less of an effect on the surrounding community. Nonetheless, no adverse effects would be anticipated.

No cumulatively adverse effects would occur under Alternative A.

7.2.15 Public Parkland and Recreation Areas

Affected Environment

The City of Los Angeles has approximately 15,710 acres of parkland that are administered by the City's Department of Recreation and Parks. According to the City of Los Angeles Public Recreation Plan, parks can be classified into three groups: neighborhood, community, and regional. A neighborhood park should be a minimum of five acres in size (ideally 10 acres), with a service radius of one-half mile. Vest pocket parks, which are less than five acres are also considered neighborhood parks. A community park should be a minimum of 15 acres in size (ideally 20 acres), with a service radius of two miles. Regional parks are generally over 50 acres in size and serve the city region. In order to meet long-range recreational standards, it is recommended that there be two acres of neighborhood and community

recreational facilities for every 1,000 people and a minimum of six acres of regional recreational facilities for every 1,000 residents.¹⁴⁷

The City of Los Angeles, in comparison with other large metropolitan areas in the United States, has less parkland per number of residents. Los Angeles is a highly urbanized city with a population growing at a significant rate. The development needs of anticipated population growth are of great concern, but at the same time the needs for open space and recreation areas to meet the needs of the population are equally important. According to the City of Los Angeles, two of the main issues in regards to open space and conservation are that “[t]here is a deficiency of open space in the City” and that “[p]ark acquisition is limited due to existing patterns of development and lack of funding.”¹⁴⁸ There is a strong need for not only the conservation of existing park and recreational land, but also a need for acquiring enough park and recreation land to help meet these needs in a highly urbanized and built environment. Table 7-4 identifies the parks and recreational areas located along the project alignment.

Table 7-4: Public Parks Located along the Project Alignment

Property	Neighborhood
MacArthur Park	Westlake/MacArthur Park
Lafayette Park/Multipurpose Community Center	Koreatown, Mid-City
Robert F. Kennedy Memorial Park (Planned)	Koreatown, Mid-City
Hancock Park/Rancho La Brea Tar Pits	Miracle Mile

Source: ICF International 2010

MacArthur Park

MacArthur Park is located in the Westlake neighborhood of the City of Los Angeles, less than two miles southwest of the Los Angeles Civic Center and approximately one mile directly west of the 110 freeway. This park is bordered on the northeast by 6th Street, on the southeast by Alvarado Street, on the southwest by 7th Street, and on the northwest by Park View Street. Wilshire Boulevard runs east and west through the park splitting it into two main segments. MacArthur Park is a public park under the ownership of the City of Los Angeles. The City of Los Angeles Department of Recreation and Parks manages the park and its facilities. Located within the park is MacArthur Park Lake on the southern segment. The lake features paddle boats, which are available for public rental on weekends. Other facilities located in the park include an auditorium, bandshell, children’s play area, active and passive recreational areas, and the MacArthur Park Community Center (which features an after-school club and various community and cultural activities). Picnic tables and walking paths are located throughout the park.

¹⁴⁷ Christopher A. Joseph & Associates. 2006. *Draft Environmental Impact Report for The Grand Avenue Project*. June 2006.

¹⁴⁸ City of Los Angeles Planning Department. *The Framework Element of the Los Angeles General Plan: Goals, Objectives, and Policies; Chapter 6 Open Space and Conservation*. Available: <http://cityplanning.lacity.org/cwd/Framwk/chapters/06/06.htm>. Accessed October 27, 2008.

Lafayette Park Multipurpose Community Center

The Lafayette Park Multipurpose Community Center, formerly known as Lafayette Park/Senior Citizen Center, is located just four blocks northwest of MacArthur Park on Wilshire Boulevard. The facility is bordered on the east by Lafayette Park Place, on the north by 6th Street, on the west by Commonwealth Avenue, and a Los Angeles County Superior Court building on the northwest. Wilshire Boulevard is the southern boundary for most of the facility, except a small triangular area south of Wilshire Boulevard and bordered by Hoover Street on the west and Lafayette Park Place on the east. The Lafayette Multipurpose Community Center is actually comprised of several facilities located on the parkland property. This approximately 234,790 square feet of public park property features open spaces with several trees and shade locations, jogging/walking paths, picnic tables, outdoor lighted basketball courts, soccer field, tennis courts, a children's play area, auditorium, community room, and the Felipe De Neve Branch Library. The Community Center offers several classes and activities for both children and adults of the neighborhood throughout the year. The property is owned by the City of Los Angeles and is managed by the Department of Recreation and Parks. Recently, the City of Los Angeles and Heart of Los Angeles (HOLA), a non-profit organization, have partnered to renovate and expand facilities on Lafayette Park. Completion of the renovations and expansion is expected in April of 2009 and features the following improvements: renovations for a field turf soccer field, state-of-the-art gymnasium, wireless computer lab, classrooms and community meeting rooms, as well as HOLA's existing art studios, fine arts library, dance studio, digital media center and education learning center.¹⁴⁹ HOLA runs many of its programs which benefit the local community from the facilities at this facility.

Robert F. Kennedy Memorial Park (under construction)

Based on recent communication with the Los Angeles Unified School District's (LAUSD) architects for one of its schools, Gonzalez Goodale Architects,¹⁵⁰ it has become known that a park is under construction at 3400 Wilshire Boulevard on property owned by the LAUSD. Based on the preliminary information available, the park will be open to the public, and is located along Wilshire Boulevard.

Hancock Park and Rancho La Brea Tar Pits

The Rancho La Brea Tar Pits and Hancock Park are located in the Miracle Mile area of Los Angeles. The property is bordered on the north by 6th Street, on the east by Curson Avenue, and on the west by the Los Angeles County Museum of Art (LACMA). Wilshire Boulevard forms the southern boundary of the property. The approximately 1,006,329-square-foot property contains the La Brea Tar Pits, a group of pools which have been spewing asphalt for the past 40,000 years and where over three million fossils from the last Ice

¹⁴⁹ Heart of Los Angeles (HOLA). *About HOLA*. Available: <http://heartofla.org/about> Accessed October 28, 2008.

¹⁵⁰ Phone Conversation with Victor Guevara of Gonzalez Goodale Architects on 11/21/2008.

Age have been excavated.¹⁵¹ Also located on the site is the George C. Page Museum of La Brea Discoveries, where many of the fossils discovered are displayed to the public. Today, excavations continue on the property and, in the summer, some excavation sites are open to the public. The Tar Pits and the Museum are both preserved and managed by the Natural History Museum of Los Angeles County Foundation. Open green space featuring a variety of different trees encompasses the property known as Hancock Park (not to be confused with the residential neighborhood of the same name located approximately one mile to the east). Several paths traverse the property for the public to walk and view the pits, as well as the large display models of prehistoric mammals located around the park.

Impacts

No Project Alternative

Under the No Project Alternative, the proposed action would not be implemented. No parks or recreational areas would be adversely affected.

No adverse impacts related to parklands or recreational areas would occur under the No Project Alternative.

Proposed Action

The proposed action does not include a housing component, and, therefore, increased demand on park service, typically resulting from an increase in residential population, is not anticipated. The proposed action involves repair, improvement and reconstruction of existing facilities along the Wilshire corridor. The current existing bus routes serving this corridor would continue to operate and would not require new or additional employees.

As stated above, parkland is not equally distributed throughout the City of Los Angeles, resulting in some communities lacking a significant amount of parkland. However, because the proposed action would not include a housing component and would not add new employees to the area, the proposed action would not result in any increase in the demand on local parks. Because the proposed action would not require the acquisition of any parkland, or incur temporary or constructive “use” pursuant to Section 4(f) (see Section 4(f) Applicability Evaluation Memo), these impacts would not be applicable. Therefore, no adverse environmental effects are anticipated related to parklands and recreational areas.

No adverse impacts related to parklands or recreational areas would occur under the proposed action.

¹⁵¹ Natural History Museum of Los Angeles County, *Return to the Ice Age: The La Brea Exploration Guide*, 2002. Available: <http://www.tarpits.org/education/guide/index.html>. Accessed October 29, 2008.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, Alternative A does not include a housing component and would not add new employees to the areas or result in any increase in demand on local parks. No parkland would be acquired, and no temporary or constructive use impacts would occur. Therefore, no adverse environmental effects are anticipated related to parklands and recreational areas.

No adverse impacts related to parklands or recreational areas would occur under Alternative A.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur; therefore, no mitigation measures are required.

Proposed Action

No adverse effects would occur; therefore, no mitigation measures are required.

Alternative A – Truncated Project Without Jut-Out Removal

No adverse effects would occur; therefore, no mitigation measures are required.

Cumulative Impacts

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no cumulative adverse effects would occur.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

BRT operations are already occurring along the project corridor. The proposed action would create peak period bus lanes to accommodate existing buses. The proposed action does not include a housing component, which typically results in increased demand for parks and recreational facilities. Therefore, the proposed action would not contribute to any cumulative impacts related to the use of parkland and recreational facilities in the project corridor. Accordingly, no adverse effects on parkland and recreation would occur either individually or cumulatively.

No cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, this alternative would not contribute to any cumulative impacts related to the use of parkland and recreational facilities in the project corridor. Accordingly, no adverse effects on parkland and recreation would occur either individually or cumulatively.

No cumulatively adverse effects would occur under Alternative A.

7.2.16 Wetlands and Floodplains

Affected Environment

According to the California Wetlands Information System (a program of the California Resources Agency), the project corridor is not located within or adjacent to any areas that would be considered a wetland as defined by Section 404 of the Clean Water Act. The nearest wetland is the Ballona Wetland located approximately 1.3 miles south of the project corridor.

Executive Order 11988 (Flood Plain Management) links the need to protect lives and property with the need to restore and preserve natural and beneficial flood plain values. Specifically, federal agencies are directed to avoid conducting, allowing, or supporting actions on the base flood plain unless the agency finds that the base flood plain is the only practicable alternative location. Similarly, Department of Transportation (DOT) Order 5650.2, which implements Executive Order 11988 (Flood Plain Management) and was issued pursuant to the National Environmental Policy Act of 1969, the National Flood Insurance Act of 1968, and the Flood Disaster Protection Act of 1973, prescribes policies and procedures for ensuring that proper consideration is given to the avoidance and mitigation of adverse flood plain impacts in agency actions, planning programs, and budget requests.

Los Angeles County is subject to a wide range of flood hazards, including those caused by earthquakes, intense storms, and failure of man-made structures. Two damaging regional tsunamis caused by the 1812 Santa Barbara and the 1927 Point Arguello earthquakes indicate that faults off the coast of Southern California are capable of producing large local tsunamis. The tsunami concern is heightened because the short historical record does not adequately characterize the long-term tsunami risk.

The Federal Emergency Management Agency (FEMA) has prepared flood maps identifying areas in Los Angeles County that would be subject to flooding during 100- and 500-year storms events. These maps indicate that portions of the project corridor are located within these flood zones. At the intersection of Wilshire Boulevard and Wilton Place, the project corridor passes through a two-city block area that is within a 500-year flood zone and small areas (less than one city block) within the 100-year flood zone at the intersection of Wilshire Boulevard and Mariposa Avenue and between

Commonwealth Avenue and Hoover Street.¹⁵² However, the risk for flooding in these areas is not any greater than that for most areas in the remaining portions of the Central Los Angeles Basin.

Impacts

No Project Alternative

Under the No Project Alternative, proposed improvements to 9.9 miles of the Wilshire corridor included under the proposed action would not be implemented. Therefore, no impacts on wetlands or floodplains would occur.

No adverse effects would occur under the No Project Alternative.

Proposed Action

The project corridor is located in a fully industrialized area and would not affect any federally protected wetlands. Therefore, no impacts on wetlands would occur.

The proposed action would not involve construction of new structures along the Wilshire corridor that would be exposed to 500-year or 100-year flood events. During these storm events, portions of the Wilshire corridor are, and will continue to be, subject to limited flooding of short duration. Implementation of the proposed action, which would involve improvements to an existing transportation corridor already used by buses and other vehicles to create peak period bus lanes to accommodate existing buses, would neither create nor contribute to flooding that would exceed the storm drain system capacity nor impede or redirect flood flow. Accordingly, implementation of the proposed action would not create any new impacts related to flooding beyond existing conditions. Therefore, no adverse effects related to flooding are anticipated to occur.

No adverse impacts related to wetlands or floodplains would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, Alternative A would be built within the existing Wilshire corridor and would not affect any federally protected wetlands. Alternative A would not contribute to flooding that would exceed the storm drain system, or impede or redirect flood flow, or otherwise increase or alter existing conditions related to flooding in the area.

No adverse impacts related to wetlands or floodplains would occur under Alternative A.

¹⁵² City of Los Angeles, NavigateLA Website, available online: <http://navigateLA.lacity.org/>, accessed November 19, 2008.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur; therefore, no mitigation measures are required.

Proposed Action

No adverse effects would occur; therefore, no mitigation measures are required.

Alternative A – Truncated Project Without Jut-Out Removal

No adverse effects would occur; therefore, no mitigation measures are required.

Cumulative Impacts

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no cumulative adverse effects would occur.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

The project corridor is located in a developed urban area of the City of Los Angeles. Designated and federally protected wetlands or floodplains do not exist in the vicinity of the project corridor. Therefore, no adverse cumulative impacts on wetlands are anticipated from project implementation.

BRT operations are already occurring along the project corridor. The proposed action would create peak period bus lanes to accommodate existing buses. Therefore, the proposed action would not contribute to any cumulative impacts related to flooding in the project corridor. Accordingly, no adverse effects related to flooding would occur either individually or cumulatively.

No cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, no adverse effects related to wetlands or floodplains would occur either individually or cumulatively under Alternative A.

No cumulatively adverse effects would occur under Alternative A.

7.2.17 Water Quality, Navigable Waterways, and Coastal Zones

Affected Environment

The primary federal law governing water quality is the Federal Water Pollution Control Act of 1972, amended as the Clean Water Act in 1977. This landmark legislation established the National Pollutant Discharge Elimination System (NPDES) permit process to regulate point source discharges to surface waters. The 1987 amendment to the Clean Water Act added Section 402(p) that requires the United States Environmental Protection Agency (EPA) to develop regulations for the control of nonpoint source discharges, such as urban storm water runoff, that ultimately ends up in receiving waters.

There are no surface water bodies located near the project corridor. The closest water bodies are the Santa Monica Bay and the Pacific Ocean, approximately 2.5 miles west of the project corridor. The Pacific Ocean is the ultimate receiving water body in the region. Santa Monica Bay is a United States Federal navigable water body and is listed as an impaired water body in the Federal listing established under the Clean Water Act, Sections 131.1, 303, 304, and 319.

Because the western end of the project corridor is approximately 2.5 miles east of the Pacific Ocean, no segment of the project corridor is located within a designated coastal zone, which ends at Wilshire Boulevard and 4th Street in the City of Santa Monica.

Impacts

No Project Alternative

Under the No Project Alternative, proposed improvements to 9.9 miles of the Wilshire corridor included under the proposed action would not be implemented.

No adverse impacts related to water resources would occur under the No Project Alternative.

Proposed Action

Implementation of the proposed action, which would involve improvements to an existing transportation corridor already used by buses and other vehicles to create peak period bus lanes to accommodate existing buses, would neither create nor contribute to water quality degradation. Project construction, which would involve resurfacing/repaving and roadway widening in some segments of Wilshire Boulevard, would comply with applicable federal, State,

and local regulations, as well as other code requirements and permit provisions to prevent any violation of water quality standards or waste discharge requirements. These codes and requirements include the City of Los Angeles Municipal Code (Chapter IX, Division 70), the National Pollutant Discharge Elimination System (NPDES) stormwater regulations, implementation of the Stormwater Pollution Prevention Plan (SWPPP), and Standard Urban Stormwater Mitigation Plan (SUSMP). Accordingly, implementation of the proposed action would not create any new impacts related to water quality beyond existing conditions. Therefore, no adverse effects related to water quality are anticipated to occur.

The proposed action would not alter the existing drainage pattern of the project corridor that would result in erosion or siltation. The project corridor is nearly flat in a heavily urbanized area and has been previously developed with impervious surfaces, with stormwater moving as sheet flow across the paved areas. The proposed action would not interfere with runoff flow patterns.

No natural streams or waterways or navigable waterways are located in the project corridor that would be considered ecologically sensitive or potentially harbor endangered species. Further, the western end of the project corridor is located more than two miles east of the Pacific Ocean and is not located in a designated coastal zone. Therefore, adverse environmental effects related to water quality, navigable waterways, and coastal zones are not anticipated with the proposed action.

No adverse impacts related to water resources would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, Alternative A would be built within the existing Wilshire corridor and would not affect existing conditions related to water quality, navigable waters, or coastal zones. No adverse effect would occur under Alternative A.

No adverse impacts related to wetlands or floodplains would occur under Alternative A.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur; therefore, no mitigation measures are required.

Proposed Action

No adverse effects would occur; therefore, no mitigation measures are required.

Alternative A – Truncated Project Without Jut-Out Removal

No adverse effects would occur; therefore, no mitigation measures are required.

Cumulative Impacts

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no cumulative adverse effects would occur.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

BRT operations already occur along the Wilshire corridor. The proposed action would create peak period curbside bus lanes to accommodate existing buses. Therefore, the proposed action would not contribute to any cumulative impacts related to water quality, navigable waters, and coastal zones. The indirect effects of reducing traffic congestion would be a beneficial effect to water quality in the region since reductions in on-road vehicles would result in a reduction in the level of water-borne pollutants that migrate to surface and groundwater through stormwater runoff. Accordingly, no adverse effects related to water quality, navigable waters, and coastal zones would occur either individually or cumulatively.

No cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, no adverse effects related to water quality, navigable waters, or coastal zones would occur either individually or cumulatively under Alternative A.

No cumulatively adverse effects would occur under Alternative A.

7.2.18 Ecologically Sensitive Areas and Endangered Species

Affected Environment

The project corridor is located in an urban area, where BRT operations are already occurring. The project corridor is not within or adjacent to natural open space or significant ecological areas (SEAs) that would support threatened or endangered species. There are no natural or landscaped features in the project corridor that would support any sensitive biological resources. Wildlife use of the project corridor is limited largely to feral cats,

rats, mice, and birds, which adapt to urban areas and are not considered sensitive species. No natural streams or waterways are located in the project vicinity that would be considered ecologically sensitive. The nearest concrete-lined stream is the Ballona Creek, located 1.3 miles south of the project corridor.

Impacts

No Project Alternative

Under the No Project Alternative, proposed improvements to 9.9 miles of the Wilshire corridor included under the proposed action would not be implemented. No ecological resource impacts would occur.

No adverse impacts related to ecologically sensitive areas or endangered species would occur under the No Project Alternative.

Proposed Action

Because the project corridor is within a highly developed urban area, and there are few suitable habitats for wildlife, there are no expected impacts related to ecologically sensitive areas, sensitive or special-status species, riparian habitat or other sensitive natural communities.

Implementation of the proposed action, which would involve improvements to an existing transportation corridor already used by buses and other vehicles to create peak period curbside bus lanes to accommodate existing buses, would not create any new impacts to existing biological resources, including sensitive or special-status species (i.e., trees and birds), in the project corridor and vicinity. In addition, the project's urban setting provides no opportunity for accessible movement between two or more existing open spaces. Project operation would not create any new impacts related to ecologically sensitive areas and endangered species beyond existing conditions. Therefore, no adverse effects related to sensitive biological resources are anticipated to occur.

However, during project construction, there is moderate potential for violation of the federal Migratory Bird Treaty Act and similar laws in the California Fish and Game Code protecting native birds, if any tree removal or other project construction were to occur during the nesting season. The segment of the project corridor, where jut-outs are proposed to be removed, would involve the removal of a maximum of 40 magnolia trees along Wilshire Boulevard between Comstock Avenue and Malcolm Avenue, which may serve as habitat for migratory birds. This may result in conflict with state and federal laws protecting native birds and their active nests. Implementation of **Mitigation Measure BR-1** would ensure that this conflict is avoided. The segment of the project corridor, where the eastbound left-turn pocket at Sepulveda Boulevard would be lengthened and the street widened between Bonsall Avenue and Federal Avenue, would involve the removal of approximately 30 small jacaranda trees. However, these trees are ornamental

and would not provide suitable habitat for migratory birds. Therefore, no impacts related to migratory birds are anticipated along this segment.

*With the incorporation of **Mitigation Measure BR-1**, no substantial adverse impacts related to ecologically sensitive areas or endangered species would occur under the proposed action.*

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, Alternative A would be built within the existing Wilshire corridor and would not create any new impacts to existing biological resources, including sensitive or special-status species, in the project corridor and vicinity. Alternative A does not include the removal of the jut-outs between Comstock Avenue and Malcolm Avenue, and, therefore, the existing magnolia trees along this portion of the project corridor would not be adversely affected. The segment of the project corridor, where the eastbound left-turn pocket at Sepulveda Boulevard would be lengthened and the street widened between Bonsall and Federal Avenues, would involve the removal of approximately 30 small jacaranda trees. However, these trees are ornamental and would not provide suitable habitat for migratory birds. No adverse effects to ecologically sensitive areas or endangered species would occur under Alternative A.

No adverse impacts related to ecologically sensitive areas or endangered species would occur under Alternative A.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur; therefore, no mitigation measures are required.

Proposed Action

The proposed action involves the removal of a maximum of 40 magnolia trees along Wilshire Boulevard between Comstock Avenue and Malcolm Avenue, which may serve as habitat for migratory birds. Accordingly, the **Mitigation Measure BR-1** shall be implemented to prevent conflict with existing federal, state, and/or local laws, regulations and/or ordinances protecting biological resources that may be encountered during construction of the proposed action. This mitigation measure is discussed in detail in Section 4.7.

Alternative A – Truncated Project Without Jut-Out Removal

No adverse effects would occur; therefore, no mitigation measures are required.

Cumulative Impacts

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no cumulative adverse effects would occur.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

The project lies entirely within a developed urban area. Accordingly, ecologically sensitive areas, special-status species, and their occupied habitat do not have reasonable potential to be present in the immediate project area. Therefore, no adverse cumulative impacts to wetlands, special-status species, or wildlife corridors would occur. However, as discussed above, the removal of some trees along the project corridor may conflict with state and federal laws protecting native birds and their active nests. Construction activities as a result of the proposed action and other projects in the area could potentially result in an adverse cumulative impact to natives birds. **Mitigation Measure BR-1** has been identified to ensure that adverse impacts to nesting birds are minimized.

With the incorporation of mitigation, no cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

No adverse effects would occur under Alternative A on ecologically sensitive resources or endangered species. Therefore, no cumulatively adverse effects would occur.

No cumulatively adverse effects would occur under Alternative A.

7.2.19 Energy Resources

Affected Environment

California's overall energy consumption continues to be dominated by growth in passenger vehicles. California is the third largest consumer of transportation fuels in the world (behind the United States as a whole and China) – more than 16 billion gallons of gasoline and nearly three billion gallons of diesel consumed each year.¹⁵³ Demand for gasoline and diesel is

¹⁵³ California Energy Commission, *2007 Integrated Energy Policy Report*, October 2007.

normally expected to increase by one to two percent each year as a growing population registers more vehicles and drives more miles.¹⁵⁴

While national demand grew by 1.5 percent in the first half of 2007, consumption in California has dropped. Californians used nearly one percent less gasoline in April 2007 – 10.5 million fewer gallons of gasoline than the previous April.¹⁵⁵ This was the fourth straight quarter in which Californians have used less gasoline than they did during the same period the year before.

Within the project corridor, as examined by the Traffic Impact Analysis, approximately 44 out of 74 of the study intersections currently experience a traffic level of service (LOS) of D, E, or F during either A.M. or P.M. peak traffic periods. While a specific amount of transportation-related energy usage cannot be ascertained based on LOS alone, LOS of D, E, or F indicates a high degree of traffic congestions and delay times during peak travel periods in the project corridor. Traffic congestion and the corresponding vehicle idling indicate a low degree of transportation-related energy-efficiency along Wilshire corridor.

Impacts

No Project Alternative

Under the No Project Alternative, proposed improvements to 9.9 miles of the Wilshire corridor included under the proposed action would not be implemented. Over time, regional population growth would be expected and would lead to increased vehicle use, increased traffic congestion, and, thus, decreased transportation-related energy efficiency in the project corridor and the larger region. No increase in bus ridership or decrease in VMT would occur. However, this would not be considered a direct impact as a result of the No Project Alternative. Therefore, no adverse effects related to energy would occur under the No Project Alternative.

No adverse impacts related to energy use would occur under the No Project Alternative.

Proposed Action

The proposed action would be accommodated along the existing Wilshire Boulevard ROW. Regional population growth would be expected that would generally lead to an increased demand in transportation needs. Based on previous studies related to the Los Angeles Metro Rapid Demonstration Program (see Appendix I), it has been determined that with improved bus passenger travel times and bus service reliability, ridership can increase dramatically. Accordingly, the proposed action would be expected to reduce VMT in personal vehicles as the proposed action would encourage a shift from automobile use to public transit by continuing to attract new transit

¹⁵⁴ *Ibid.*

¹⁵⁵ *Ibid.*

riders. The overall effect of the proposed action is expected to result in increased use of public transportation. In turn, this would result in decreased traffic congestion, vehicle idling, thereby increasing the transportation related energy efficiency within the project corridor for both public transportation and private vehicle use. Therefore, the proposed action would result in less energy consumption than baseline conditions and, as such, would result in a beneficial energy impact.

No adverse impacts related to energy use would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, Alternative A is expected to result in increased use of public transportation, with a corresponding decrease in traffic congestion and vehicle idling. Increased transportation related energy efficiency under Alternative A would result in less energy consumption than baseline conditions and, as such, would result in a beneficial effect (reduction) on energy use.

No adverse impacts related to energy use would occur under the Alternative A.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur; therefore, no mitigation measures are required.

Proposed Action

No adverse effects would occur; therefore, no mitigation measures are required.

Alternative A – Truncated Project Without Jut-Out Removal

No adverse effects would occur; therefore, no mitigation measures are required.

Cumulative Impacts

No Project Alternative

No adverse effects related to energy use would occur under the No Project Alternative; therefore, no cumulative adverse effects would occur.

No cumulatively adverse effects related to energy use would occur under the No Project Alternative.

Proposed Action

No adverse effects related to energy use would occur under the proposed action; therefore, no cumulative adverse effects would occur. Increased transportation-related energy efficiency along the Wilshire corridor would serve to reduce energy use by reducing total VMTs for personal vehicles. Therefore, the proposed action would be expected to have a cumulatively beneficial effect (reduction) on energy use.

No cumulatively adverse effects related to energy use would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, Alternative A would not result in adverse effects on energy use, and, therefore, no cumulative adverse effects would occur. As with the proposed action, under Alternative A, increased transportation-related energy efficiency along the Wilshire corridor would serve to reduce energy use by reducing total VMTs for personal vehicles. Therefore, this alternative would be expected to have a cumulatively beneficial effect (reduction) on energy use.

No cumulatively adverse effects related to energy use would occur under Alternative A.

7.2.20 Safety and Security

Affected Environment

LACMTA oversees the operation of bus, heavy rail transit, and light rail transit services throughout Los Angeles County. As part of its responsibilities, LACMTA implements its System Safety Program Plan to maintain and improve the safety of commuter operations, reduce accidents and associated costs, and comply with state regulations. These safety measures have been established to ensure worker and passenger safety, prevent crime, allow for adequate emergency response, and include emergency procedures to be followed in the event of a natural disaster. LACMTA currently provides police surveillance (via contracts with the Los Angeles County Sheriff's Department), non-uniformed police inspectors on transit buses and at major transit nodes, closed-circuit television in some locations, and an emergency radio response system.

In addition, LACMTA works closely with the LADOT to improve intersections with transit signal priority and all the necessary street infrastructure to enable motorists, bicyclists, and pedestrians to interact safely with the Metro Rapid buses as they cross through the Wilshire corridor intersections between Central and West Los Angeles.

LACMTA currently operates the Wilshire Metro Rapid Bus 720 and 920 lines along the Wilshire corridor. Bus stops have already been constructed as part

of these lines with necessary safety features that ensure pedestrian, motorist and bicyclist safety.

Impacts

No Project Alternative

Under the No Project Alternative, proposed improvements to 9.9 miles of the Wilshire corridor included under the proposed action would not be implemented.

No adverse impacts related to safety and security would occur under the No Project Alternative.

Proposed Action

The proposed action would convert existing curb lanes on Wilshire Boulevard to bus and right-turn only lanes operating in the peak periods on weekdays. The curb lanes would be repaired or reconstructed, where necessary, and restriped and signed as peak period bus lanes. In other areas, curbside bus lanes would be added as new lanes to Wilshire Boulevard by widening or removing jut-outs. These improvements would be implemented following design guidelines by the City of Los Angeles and LACMTA in order to continue to ensure pedestrian, motorist, and bicyclist safety. Implementation of the proposed action, which would involve improvements to an existing transportation corridor already used by buses and other vehicles, would neither increase the number of crimes occurring on LACMTA property or service corridor nor substantially change the operation of the Wilshire Metro Rapid bus service. Therefore, no adverse effects related to safety and security are anticipated. During construction, traffic detours and truck routes would be required. Maintaining an adequate level of signage, construction barriers, and supervision of trained safety personnel as part of the construction team would ensure that pedestrian and motorist safety is maintained during construction.

No adverse impacts related to safety and security would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, the improvements under Alternative A would be implemented following design guidelines by the City of Los Angeles and LACMTA in order to continue to ensure pedestrian, motorist, and bicyclist safety. Implementation of Alternative A, which would involve similar improvements described for the proposed action within an existing transportation corridor already used by buses and other vehicles, would neither increase the number of crimes occurring on LACMTA property or service corridor nor substantially change the operation of the Wilshire Metro Rapid bus service. Similar to the proposed project, during construction, traffic detours and truck routes would be required. Maintaining an adequate

level of signage, construction barriers, and supervision of trained safety personnel as part of the construction team would ensure that pedestrian and motorist safety is maintained during construction.

Therefore, no adverse effects related to safety and security under Alternative A are anticipated.

No adverse impacts related to safety and security would occur under Alternative A.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur; therefore, no mitigation measures are required.

Proposed Action

No adverse effects would occur; therefore, no mitigation measures are required.

Alternative A – Truncated Project Without Jut-Out Removal

No adverse effects would occur; therefore, no mitigation measures are required.

Cumulative Impacts

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no cumulative adverse effects would occur.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

Implementation of the proposed action would not change the operation of the Wilshire Metro Rapid bus service or cause adverse cumulative effects on safety and security. The improved service would entice some drivers to choose public transit as a choice for commuting, which could theoretically reduce the potential for traffic accidents. Similarly, average travel speeds on Wilshire Boulevard may increase slightly during peak periods relative to the cumulative base condition but would remain well below the posted speed limit. At the system level, this would be a beneficial cumulative effect of the proposed action.

No cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, no adverse effects related to safety and security would occur either individually or cumulatively under Alternative A.

No cumulatively adverse effects would occur under Alternative A.

7.2.21 Construction

Affected Environment

Construction activities within public rights-of-way are not typically considered to be adverse due to their short term nature, particularly with implementation of construction management and abatement measures. Project construction would employ conventional construction techniques and equipment used in the Southern California region. All work would conform to industry specifications and standards. Construction could possibly begin in early 2011 and take approximately two years to implement all the proposed improvements.

Impacts

Traffic

No Project Alternative

No construction activities would occur under the No Project Alternative; therefore, no adverse effects related to construction traffic would occur.

No adverse effects related to construction traffic would occur under the No Project Alternative.

Proposed Action

Major project elements involving construction include the following:

- From Western Avenue to Fairfax Avenue (approximately 3.0 miles), curb lanes would be reconstructed/resurfaced and converted to peak period bus lanes;
- From Comstock Avenue to Malcolm Avenue (approximately 1.0 miles), various curb improvements, including jut-out removal and realignment of curbs, would be implemented;
- From Sepulveda Boulevard to Bonsall Avenue (approximately 0.2 mile), no bus lanes would be implemented. However, at Sepulveda Boulevard, the eastbound left-turn pocket would be lengthened by approximately 470 feet to accommodate a greater number of vehicles that are currently queued in the No. 1 eastbound traffic lane, resulting in full use of the No. 1 lane for through traffic movements.

- From Bonsall Avenue to Federal Avenue (approximately 0.4 mile), in order to accommodate an eastbound peak period bus lane, the sidewalk widths on both sides of Wilshire Boulevard would be reduced to a uniform width. Both eastbound and westbound lanes would be restriped. Wilshire Boulevard between Interstate 405 and Federal Avenue is bordered by the Veterans Administration (VA) property. The sidewalk widths on both sides of Wilshire Boulevard in this segment vary between 10 and 15 feet.
- From Federal Avenue to Barrington Avenue (approximately 0.1 mile), both sides of Wilshire Boulevard would be widened by reducing the sidewalk widths on the north and south sides, allowing restriping of the street and creation of a new eastbound peak period bus lane and conversion of the westbound curb lane to a peak period bus lane.

The equipment that would be used in construction may include graders, dozers, cement-mixers, flat bed trucks, and dump trucks to haul asphalt debris. These construction vehicles would be used along the alignment to implement the project improvements identified above and would possibly impede traffic mobility in areas of construction. Traffic detours and truck routes would be required during construction. Traffic disruptions would likely occur and result in adverse effects to local traffic circulation.

It is anticipated that construction work may temporarily reduce the capacity of, and cause delays to, the traffic flow along Wilshire Boulevard. The City and County of Los Angeles would be required to prepare and implement a Traffic Management Plan that would best serve the mobility and safety needs of the motoring public, construction workers, businesses, and community, as well as facilitate the flow of automobile and pedestrian traffic during construction. The plan would consist of a temporary traffic control plan that addresses both the transportation operations and public information components. In order to minimize the traffic impacts to the extent possible, several mitigation measures will need to be implemented along the project corridor to help mitigate the temporary construction impact to traffic and the adjacent businesses. Some of these measures include traffic control devices and possibly flagmen and/or traffic officers, frequent street sweeping, and the implementation of diversions/detours to facilitate traffic flow throughout the construction zones. In addition, a Construction Phasing and Staging Plan would be required to control the impacts of construction in any segment by limiting the areas that may be constructed at a particular time. The goal of the construction phasing plan would be to maximize the work area under construction while minimizing the inconvenience to the businesses and motoring public. The proposed action would be required to comply with the Holiday Moratorium, which prohibits construction work from November 15 through January 2.

A minimum of one-week advance notice would be provided to individual owners (businesses and residences), owner's agents, and tenants of buildings adjacent to work-site before impairing access to those buildings and use of adjacent public ways or prohibiting stopping and parking of vehicles. Additionally, temporary special signs would be used to mitigate the effects of construction on businesses by informing customers that merchants and other

businesses are open and to provide special access directions if warranted. A minimum 3-foot pedestrian access along sidewalks would be maintained at all times.

Public awareness strategies include various methods to educate and reach out to the public, businesses, and the community concerning the project and work zone. The public component piece of the Traffic Management Plan may include organizing and hosting project briefings for area residents, local workforce, commuters and business owners; consultation with area homeowner associations, neighborhood councils, and Business Improvement Districts (BID); responding to telephone calls and e-mails; design and distribution of a project brochure; issuing construction notices to inform public of construction schedules; attending weekly construction progress meetings and reporting community concerns; working closely with affected Council Districts, as well as the Mayor's Los Angeles Business Team to mitigate concerns; issuing news releases to local media to inform public of traffic impacts; and, developing and managing a project website and/or telephone hotline.

The above measures are included in **Mitigation Measures C-1** through **C-3** and shall be implemented to ensure that traffic disruptions are reduced to a level that would not be considered adverse.

Construction of the proposed action would result in a temporary adverse effect related to traffic circulation.

Alternative A – Truncated Project Without Jut-Out Removal

Major project elements involving construction include the following:

- From Western Avenue to San Vicente Boulevard (approximately 3.6 miles) and from the western boundary of the City of Beverly Hills to Westholme Avenue (approximately 1.2 miles), curb lanes would be reconstructed/resurfaced and converted to peak period bus lanes;
- From Sepulveda Boulevard to Bonsall Avenue (approximately 0.2 mile), no bus lanes would be implemented. However, at Sepulveda Boulevard, the eastbound left-turn pocket would be lengthened by approximately 470 feet to accommodate a greater number of vehicles that are currently queued in the No. 1 eastbound traffic lane, resulting in full use of the No. 1 lane for through traffic movements.
- From Bonsall Avenue to Federal Avenue (approximately 0.4 mile), in order to accommodate an eastbound peak period bus lane, the sidewalk widths on both sides of Wilshire Boulevard would be reduced to a uniform width. Both eastbound and westbound lanes would be restriped. Wilshire Boulevard between Interstate 405 and Federal Avenue is bordered by the Veterans Administration (VA) property. The sidewalk widths on both sides of Wilshire Boulevard in this segment vary between 10 and 15 feet.
- From Federal Avenue to Barrington Avenue (approximately 0.1 mile), both sides of Wilshire Boulevard would be widened by reducing the sidewalks on the north and south sides, allowing restriping of the street

and creation of a new eastbound peak period bus lane and the conversion of the westbound curb lane to a peak period bus lane.

The equipment that would be used in construction may include graders, dozers, cement-mixers, flat bed trucks, and dump trucks to haul asphalt debris. These construction vehicles would be used along the alignment to implement the project improvements identified above and would possibly impede traffic mobility in areas of construction. Traffic detours and truck routes would be required during construction. As with the proposed action, traffic disruptions would likely occur and result in adverse effects to local traffic and pedestrian circulation and businesses in the area under this alternative. As described for the proposed action (above), **Mitigation Measures C-1** through **C-3** shall be implemented to ensure that traffic disruptions are reduced to a level that would not be considered adverse.

Air Quality

No Project Alternative

No construction activities would occur under the No Project Alternative; therefore, no adverse effects related to air quality would occur.

No adverse effects related to construction emissions would occur under the No Project Alternative.

Proposed Action

Regional Impacts. The Air Quality Assessment Report assumed a conservative worst-case impact scenario in calculating regional air quality impacts. For modeling purposes, it was assumed that construction would have a duration of approximately 4 months. The total amount of construction, the duration of construction, and the intensity of construction activity could have a substantial effect upon the amount of construction emissions, the concentrations, and the resulting impacts occurring at any one time. As such, the emission forecasts provided herein reflect a specific set of conservative assumptions based on the expected construction scenario wherein a relatively large amount of construction is occurring in a relatively intensive manner. Because of this conservative assumption, actual emissions could be less than those forecasted. If construction is delayed or occurs over a longer time period, emissions could be reduced because of (1) a more modern and cleaner burning construction equipment fleet mix, and/or (2) a less intensive buildout schedule (i.e., fewer daily emissions occurring over a longer time interval).

Table 4.2-4 (Section 4.2), shows the emissions calculated for construction of the proposed action. As shown therein, it was found that criteria pollutant emissions would be less than the applicable SCAQMD significance thresholds. Therefore, a substantial adverse effect related regional air quality would not result from construction activities under the proposed action.

Construction of the proposed project would not result in a substantial adverse effect related to regional criteria pollutant impacts.

Localized Impacts. The SCAQMD has developed a set of mass emissions rate look-up tables that can be used to evaluate localized impacts that may result from construction-period criteria pollutant emissions, including PM₁₀, and PM_{2.5}. If the on-site emissions from proposed construction activities are below the Localized Significance Threshold (LST) emission levels found in the LST mass rate look-up tables for the project site's SRA, then project emissions would not have the potential to cause a significant localized air quality impact.

When quantifying mass emissions for LST analysis, only emissions that occur on site are considered. Consistent with SCAQMD LST guidelines, emissions related to offsite delivery/haul truck activity and employee trips are not considered in the evaluation of localized impacts. Based on the Air Quality Assessment Report, the worst-case maximum emissions for all criteria pollutants would remain below their respective SCAQMD LST significance thresholds (see Section 4.2, Table 4.2-5). As such, localized impacts that may result from construction-period criteria pollutant emissions would not be considered substantially adverse.

The greatest potential for TAC emissions would be related to diesel particulate emissions associated with heavy equipment operations during site grading activities. The SCAQMD does not consider diesel-related cancer risks from construction equipment to be an issue due to the short-term nature of construction activities. Construction activities associated with the proposed project would be sporadic, transitory, and short term in nature. The assessment of cancer risk is typically based on a 70-year exposure period. Because exposure to diesel exhaust would be well below the 70-year exposure period, construction of the proposed project is not anticipated to result in an elevated cancer risk to exposed persons due to the short-term nature of construction. As such, localized project-related toxic emission impacts during construction would not be considered substantially adverse under the proposed project.

Construction of the proposed action would not result in a substantial adverse effect related to localized criteria pollutants or toxic air contaminants.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, regional and localized construction-period impacts under Alternative A would be similar to or less than those for the proposed action, since less construction activity would occur under the project alternative than under the proposed project. There would be no jut-out removal between Comstock Avenue and Malcolm Avenue, and there would be no bus lane-related construction from approximately 300 feet east of Veteran Avenue to the I-405 northbound ramps and from S. Park View Street east. However, there would be some additional curb lane reconstruction/resurfacing from Fairfax Avenue to San Vicente Boulevard and from the western boundary of the City of Beverly Hills to Westholme Avenue. Similar to the proposed project, criteria pollutant emissions under Alternative A would be less than the applicable SCAQMD significance thresholds. Construction-period TAC emissions, as with the proposed project, would be temporary in nature, and as such, would not result in substantial adverse effects related to regional or localized air quality impacts.

Construction of Alternative A would not result in a regionally or localized substantial adverse effect related to criteria pollutants or toxic air contaminants.

Noise

No-Project Alternative

Under the No Project Alternative, proposed improvements to the Wilshire corridor included under the proposed action would not be implemented. No construction activities would take place, and, therefore, no construction noise would be generated.

No adverse effects related to construction noise would occur under the No Project Alternative.

Proposed Action

Project construction would increase noise levels temporarily at noise-sensitive locations near the project site. The magnitude of the increases would depend on the type of construction activity, the noise level generated by various pieces of construction equipment (see Table 4.4-7 in Section 4.4 of this document), site geometry (i.e., shielding from intervening terrain or other structures), and the distance between the noise source and receiver.

Noise from construction activity is generated by the broad array of powered, noise-producing mechanical equipment used in the construction process. The types of equipment range from hand-held pneumatic tools used for installation of signage and traffic signals, to jack-hammers, rock drills, and pile drivers to break the sidewalk and roadway surface, to compactors, graders, scrapers, and pavers used in roadway reconstruction. The exact complement of noise-producing equipment that would be in use during any particular period has not yet been determined. However, the noise levels from construction activity during various phases of a typical public works and roadway construction project have been evaluated, and their use provides an acceptable prediction of a project's potential noise impacts.

Assuming an average noise level of 89 dBA (at 50 feet distance from roadway centerline) during excavation activities for roadway reconstruction of the curb lanes in the segment between Western Avenue and Fairfax Avenue, noise levels would temporarily increase by more than 15 decibels from the typical ambient daytime noise levels measured in the area at four of the six measurement locations (ST-1, ST-3, ST-4, and ST-6), as discussed in detail in Section 4.4 of this document. Although the increases in noise levels would be substantial, the increases would be intermittent and temporary, and during daytime hours, it is unlikely that significant impacts on noise-sensitive uses or activities would occur. The other corridor segments that would require roadway and/or curb reconstruction would not result in an increase in noise from existing levels above the 15-decibel threshold of significance.

In addition, Section 1508.27 of the Council on Environmental Quality's (CEQ) regulations for implementing NEPA requires considerations of both context and intensity when determining the significance of an impact.

Context considers several factors, such as society as a whole (human, national), the affected region, the affected interests, and the locality, while intensity refers to the severity of impact. Several factors are considered in evaluating intensity. Particularly applicable to the proposed action are the following two factors – (1) the degree to which the proposed action affects public health or safety, and (2) whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.. Construction noise from the proposed action would be temporary and intermittent and would not substantially threaten public health. The construction activities required for the proposed action would not occur simultaneously along all segments of the project corridor and would be of short-duration (e.g., one to two weeks), completed in segment by segment intervals (e.g., a few blocks at a time). Furthermore, the proposed action would be required to comply with the City’s Noise Ordinance, which limits construction between the hours of 7:00 a.m to 9:00 p.m., Mondays through Fridays, and 8:00 a.m. to 6:00 p.m. on Saturdays. Noise control measures (**Mitigation Measures N-1** through **N-4** identified in Section 4.4) are also recommended during project construction to reduce the noise levels to the extent practicable in order to minimize the impact on nearby sensitive receptors. Based on these considerations, construction noise effects would not be considered substantially adverse under NEPA.

No adverse effects would occur due to construction period noise under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, construction noise impacts anticipated under this alternative would not be considered adverse. This alternative would include mobility improvements along 8.7 miles of Wilshire Boulevard. These improvements include converting existing curb lanes to dedicated weekday peak period bus lanes in both the eastbound and westbound directions.

This alternative would be truncated at S. Park View Street and would neither convert existing curb lanes into bus lanes east to Valencia Street nor from approximately 300 feet east of Veteran Avenue to the I-405 northbound ramps. In addition, jut-out removal between Comstock Avenue and Malcolm Avenue would not occur under this alternative. However, noise impacts from Western Avenue to Fairfax Avenue would be extended from Western Avenue to San Vicente Boulevard under Alternative A. In addition, reconstruction of curb lanes would also occur from the Beverly Hills western city limit to Westholme Avenue under Alternative A. Similar to the proposed action, construction noise generated by Alternative A would be temporary and intermittent and would not substantially threaten public health. The construction activities required for Alternative A would not occur simultaneously along all segments of the project corridor and would be of short-duration, completed in segment by segment intervals. In addition, Alternative A would be required to comply with the City’s Noise Ordinance, which limits construction between the hours of 7:00 a.m to 9:00 p.m., Mondays through Fridays, and 8:00 a.m. to 6:00 p.m. on Saturdays. Noise control measures (**Mitigation Measures N-1** through **N-4** identified in Section 4.4) are also recommended during project construction to reduce the noise levels to the extent practicable in order to minimize the impact

on nearby sensitive receptors. Based on these considerations, construction noise effects would not be considered substantially adverse under NEPA.

No adverse effects would occur due to construction period noise under Alternative A.

Vibration

No-Project Alternative

Under the No Project Alternative, proposed improvements to the Wilshire corridor included under the proposed action would not be implemented. No construction activities would take place, and, therefore, no construction-related vibration would be generated.

No adverse effects related to construction-related vibration would occur under the No Project Alternative.

Proposed Action

Construction activities (e.g., breaking of pavement, reconstruction of the roadway base, repaving/resurfacing) have the potential to result in a temporary minor increase in vibration levels in the project area resulting from the short-term use of construction equipment. Table 7-5 shows vibration source levels for different kinds of construction equipment.

Table 7.5: Vibration Source Levels for Construction Equipment (from measured data^{a,b,c,d})

Equipment		PPV at 25 feet (in/sec)	Approximate L _v * at 25 feet
Pile Driver (impact)	Upper range	1.518	112
	Typical	0.644	104
Pile Driver (sonic)	Upper range	0.734	105
	Typical	0.170	93
Clam shovel drop (slurry wall)		0.202	94
Hydromill (slurry wall)	In soil	0.008	66
	In rock	0.017	75
Vibratory Roller		0.210	94
Hoe Ram		0.089	87
Large bulldozer		0.089	87
Caisson drilling		0.089	87
Loaded trucks		0.076	86
Jackhammer		0.035	79
Small bulldozer		0.003	58

* RMS velocity in decibels (VdB) re 1 micro-inch/second

^a D.J. Martin, "Ground Vibrations from Impact Pile Driving during Road Construction," Supplementary Report 544, United Kingdom Department of the Environment, Department of Transport, Transport and Road Research Laboratory, 1980.

^b J.F. Wiss, "Vibrations During Construction Operations," Journal of Construction Division, Proc. American Society of Civil Engineers, 100, No. CO3, pp. 239 - 246, September 1974.

^c J.F. Wiss, "Damage Effects of Pile Driving Vibrations," *Highway Research Record*, No. 155, Highway Research Board, 1967.

^d David A. Towers, "Ground-borne Vibration from Slurry Wall Trench Excavation for the Central Artery/Tunnel Project Using Hydromill Technology," Proc. InterNoise 95, Newport Beach, CA, July 1995.

Source: FTA. Traffic Noise and Vibration Impact Assessment, 2006.

From the equipment listed in the table, the proposed action would likely only require the use of pavement rollers, loaded trucks, and possibly jack hammers on the project site. The equipment used for the proposed action would generate vibration levels of approximately 0.2 inches per second (in/sec) peak particle velocity (PPV) and less at a distance of 25 feet. Groundborne vibration in excess of 0.2 inch PPV would be considered adverse. Since most sensitive receptors are located approximately 40-50 feet away from the roadway, vibration levels associated with the project would not exceed 0.2 inch PPV and would not be considered adverse.

In addition, construction activities for the proposed action would be temporary and intermittent. The construction activities required for the project would not be required along all segments of the project corridor and would be of short-duration, completed in segment by segment intervals. Furthermore, construction activities would adhere to best management practices (BMPs) per LACMTA's Construction Specifications, including Section 01565 (Construction Noise and Vibration). Therefore, no adverse construction vibration effects are anticipated.

No adverse effects related to construction-related vibration would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, construction vibration impacts anticipated under this alternative would not be considered adverse. This alternative would include mobility improvements along 8.7 miles of Wilshire Boulevard. These improvements include converting existing curb lanes to dedicated weekday peak period bus lanes in both the eastbound and westbound directions.

This alternative would be truncated at S. Park View Street and would not convert existing curb lanes into bus lanes east to Valencia Street nor from approximately 300 feet west of Veteran Avenue to the I-405 northbound ramps. In addition, the jut-out removal between Comstock Avenue and Malcolm Avenue, one of the activities most likely to generate vibration, would not occur under this alternative, and, therefore, construction vibration impacts expected from this activity would not occur. Under this alternative, there would also be additional curb lane reconstruction/resurfacing from Fairfax Avenue to San Vicente Boulevard and from the western boundary of the City of Beverly Hills to Westholme Avenue.

No adverse effects related to construction-related vibration would occur under Alternative A would occur.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur related to construction; therefore, no mitigation measures are required.

Proposed Action

No adverse effects would occur related to construction, with the exception of construction traffic. Traffic disruptions would likely occur and result in adverse effects to local traffic circulation. **Mitigation Measures C-1** through **C-3** below would ensure that construction-related traffic impacts would be reduced to a level that is not considered adverse.

C-1 The City and County of Los Angeles shall prepare a traffic management plan to facilitate the flow of traffic during construction. The plan shall include the following:

- Implement diversions/detours to facilitate traffic flow throughout the construction zones;
- Implement traffic control devices and flagmen/traffic officers, if possible, to maintain traffic flow throughout the construction zones; and
- Implement a public outreach/education program to inform the public about the planned construction process and encourage motorists to consider alternate travel routes.

C-2 The City and County of Los Angeles shall develop Worksite Traffic Control plans to accommodate required pedestrian and traffic movements. The plan shall include the following:

- Location of any roadway/lane or sidewalk closure;
- Traffic detours and haul routes;
- Hours of operation;
- Protective devices and warning signs; and
- Access to abutting properties.

C-3 The City and County of Los Angeles shall develop a Construction Phasing and Staging Plan to minimize the inconvenience to businesses and motorists within the construction zones. The plan shall control the impacts of construction in any segment by limiting the areas that may be constructed at a particular time.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, no adverse effects would occur related to construction under Alternative A, with the exception of construction traffic. Traffic disruptions would likely occur and result in adverse effects to local traffic circulation. **Mitigation Measures C-1** through **C-3** above would ensure that construction-related traffic impacts would be reduced to a level that is not considered adverse.

7.3 Statutory Checklist

Table 7-6 identifies the determinations or compliance for each listed statute, executive order or regulation for the proposed action and Alternative A.

Table 7-6: Statutory Checklist

Documentation	Determinations and Compliance
Historic Preservation [36 CFR 800]	No effect on historic resources is anticipated (refer to Subsection 7.2.7 above) for either the proposed action or Alternative A.
Floodplain Management [24 CFR 55, Executive Order 11988]	According to the City of Los Angeles General Plan Public Safety Element and the Federal Emergency Management Agency (FEMA), and the City of Los Angeles NavigateLA website, at the intersection of Wilshire Boulevard and Wilton Place, the project corridor passes through a two-city block area that is within a 500-year flood zone and small areas (less than one city block) within the 100-year flood zone at the intersection of Wilshire Boulevard and Mariposa Avenue, and between Commonwealth Avenue and Hoover Street. Implementation of the proposed action or Alternative A, which would involve improvements to an existing transportation corridor already used by buses and other vehicles to create peak period bus lanes to accommodate existing buses, would neither create nor contribute to flooding that would exceed the storm drain system capacity nor impede or redirect flood flow. No adverse effects related to flooding are anticipated (refer to Subsection 7.2.16 above).
Wetlands Protection [Executive Order 11990]	No wetlands are located in the project corridor or its surrounding area (refer to Subsection 7.2.18 above).
Coastal Zone Management Act [Sections 307(c), (d)]	The western end of the project corridor is approximately 2.5 miles east of the Pacific Ocean and is not located in a designated coastal zone area (refer to Subsection 7.2.17 above).
Sole Source Aquifers [40 CFR 149]	According to the U.S. Environmental Protection Agency, the nearest designated sole source aquifers (SSA) to the project corridor are the Fresno County SSA and the Campo-Cottonwood SSA located in San Diego County adjacent to the U.S.-Mexico border. ¹⁵⁶
Endangered Species Act [50 CFR 402]	No effect on sensitive biological resources is anticipated. However, in order to ensure avoidance of any impacts, particularly for the proposed action related to migratory birds, Mitigation Measure BR-1 is required to ensure that active nesting sites are not affected during construction activities. (refer to Subsection 7.2.18 above).
Wild and Scenic Rivers Act [Sections 7(b), (c)]	The project corridor is not within one mile of a U.S. Department of Interior, National Park Service listed Wild and Scenic River. ¹⁵⁷ No effect is anticipated.

¹⁵⁶ U.S. Environmental Protection Agency, Region 9 Water Program, Sole Source Aquifer, <http://www.epa.gov/region09/water/groundwater/ssa.html>, updated March 24, 2008.

¹⁵⁷ U.S. Fish & Wildlife Service, National Wild and Scenic Rivers System, <http://www.rivers.gov/wildriverslist.html>, updated November 22, 2008.

Table 7-6: Statutory Checklist (Continued)

Documentation	Determinations and Compliance
<p>Air Quality [Clean Air Act, Sections 176(c) and (d), and 40 CFR 6, 51, 93]</p>	<p>The project action and Alternative A both qualify for an exemption from the requirement to determine conformity. As such, both the proposed action and Alternative A do not require a project-level conformity analysis.</p>
<p>Farmland Protection Policy Act [7 CFR 658]</p>	<p>The project corridor does not include prime or unique farmland.¹⁵⁸ No effect on agricultural resources is anticipated.</p>
<p>Environmental Justice [Executive Order 12898]</p>	<p>Neither the proposed action nor Alternative A would result in any disproportionately high or adverse human health or environmental effects. The construction and operational impacts of the proposed action or Alternative A would not disproportionately impact minority or low-income groups and, therefore, effects related to community disruption and environmental justice are not anticipated (refer to Subsection 7.2.14 above).</p>

¹⁵⁸ California Department of Conservation, Division of Land Resource Protection, Important Farmland Categories, available at: http://www.consrv.ca.gov/dlrp/fmmp/mccu/map_categories.htm, accessed: November 13, 2008.