3.19 CUMULATIVE IMPACTS

3.19.1 INTRODUCTION

Under the California Environmental Quality Act (CEQA) Guidelines, cumulative impacts are defined as two or more individual impacts that, when considered together, are considerable or would compound and increase other environmental impacts (Section 15355). These cumulative impacts must be discussed in an environmental impact report when the project's incremental effect is "cumulatively considerable" (Section 15130). "Cumulatively considerable" is defined as when the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects (Section 15065(a)(3)).

CEQA Guidelines Section 15130(b)(1) includes two methodology approaches for assessing cumulative impacts. One approach is a "list of past, present, and probable future projects producing related or cumulative impacts" (Section 15130(b)(1)(A)). The other approach is a "summary of projections contained in an adopted local, regional, or statewide plan, or related document, that describes or evaluates conditions contributing to the cumulative effect" (15030 (b)(1)(B)). For the purposes of this analysis, the latter approach is used due to the long project implementation time. The forecasted project completion timeframe is in the late-2040s based on Metro Measure M funding. Due to the long-term nature of the project's implementation, a list of land use and transportation projects is insufficient for the cumulative analysis since the currently known projects would be completed and operational by the project's forecasted completion. In addition, it is highly likely additional projects will be proposed and constructed between now and project implementation; therefore, any project list developed would be incomplete.

The Southern California Association of Governments (SCAG) 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) is the adopted long-range forecast for population, households, and employment within the six-county Southern California region, which includes all project elements. The project is included in the SCAG 2020-2045 RTP/SCS, as well as Metro's 2020 Long Range Transportation Plan. The RTP/SCS was adopted in 2020 and proposes land use and transportation strategies to improve mobility options and achieve a more sustainable growth pattern (SCAG 2020). SCAG worked in close coordination with decision-makers and the public across multiple jurisdictions throughout the SCAG region to create the plan. The population, household, and employment growth projections from this plan are used to assess regional growth and its cumulative impact within the vicinity of the project.

For the cumulative analysis, unless identified otherwise for a specific resource, the resource study area (RSA) is defined as a 0.5-mile radius from the stations, the Hollywood Bowl Design Option, and the maintenance and storage facility (MSF). The project RSAs for each resource are discussed in the relevant resource sections in Chapter 3. For context, Table 3.19-1 shows the projected net growth in population, households, and employment between 2020 and 2045 for Los Angeles County, the City of Los Angeles, and the City of West Hollywood. Table 3.19-2 shows the projected net growth in population, households, and employment between 2019 and 2045 in the 0.5-mile cumulative RSA for all stations, the design option, and the MSF. The data in the table were calculated by merging the SCAG 2020-2045 RTP/SCS

TABLE 3.19-1. PROJECTED PERCENT GROWTH FOR LOS ANGELES COUNTY, CITY OF LOS ANGELES, AND CITY OF WEST HOLLYWOOD

COUNTY/CITY	POPULATION % GROWTH (2021 TO 2045)	HOUSEHOLD % GROWTH (2021 TO 2045)	EMPLOYMENT % GROWTH (2019 TO 2045)
Los Angeles County	16.5	23.2	11.5
City of Los Angeles	22.1	29.3	13.3
City of West Hollywood	19.9	31.5	52.7

Source: U.S. Census Bureau 2021; SCAG 2020

TABLE 3.19-2. SCAG POPULATION, HOUSING, AND EMPLOYMENT PROJECTED PERCENT GROWTH FOR 0.5-MILE BUFFER AREAS

STATION BUFFER AREA	POPULATION % GROWTH (2021 TO 2045)	HOUSEHOLD % GROWTH (2021 TO 2045)	EMPLOYMENT % GROWTH (2019 TO 2045)
STATIONS			
Crenshaw/Adams	60.5	63.1	19.6
Midtown Crossing	49.2	46.1	21.1
Wilshire/Fairfax	62.1	68.1	6.2
Fairfax/3rd	42.1	52.4	6.5
La Cienega/Beverly	54.5	55.6	6.1
San Vicente/Santa Monica	23.8	38.2	46.2
Fairfax/Santa Monica	20.5	29.3	49.5
La Brea/Santa Monica	15.1	15.0	42.6
Hollywood/Highland	37.9	26.4	3.0
Wilshire/La Brea	53.3	48.6	9.4
La Brea/Beverly	34.8	36.4	14.5
DESIGN OPTION			
Hollywood Bowl Design Option	65.0	52.5	17.4
MAINTENANCE AND STORAGE FACILITY			
MSF	14.0	15.9	9.9

Source: U.S. Census Bureau 2021; SCAG 2020
Note: The growth projection percentages for the La Brea/Santa Monica Station are averages of the growth projection percentages for the two station configurations for the San Vicente-Fairfax and Fairfax Alignments and the La Brea Alignment.
MSF = maintenance and storage facility

growth projections with the SCAG Tier 2 Transportation Analysis Zone boundaries[1] for Los Angeles County, then assessed for a 0.5-mile radius around the stations, the design option, and the MSF. Data shows projected growth from transportation and development projects and associated infrastructure, that when combined with the project's construction and operation, could result in cumulative effects.

A cumulative analysis, including identification of any applicable impacts, is presented for each resource topic evaluated in Chapter 3 of this Draft Environmental Impact Report.

3.19.2 AESTHETICS

3.19.2.1 ALIGNMENTS AND STATIONS

Less than Significant Impact. The existing visual character in the areas of the alignments and stations would not substantially change, and the quality of views in terms of visibility beyond the alignments and stations would not be substantially obstructed. The alignments would be primarily underground, and the above-surface features would be absorbed into the broader views that already include urbanized, built-out street views. The stations would not obstruct or substantially obstruct views of mountains and hillsides to the north and east because these views are already blocked by development. The alignments and station would be consistent with local planning documents and would comply with local ordinances and regulations.

The alignments and stations would not produce a substantial amount of light and glare, and they would comply with Metro and other local lighting ordinances during construction and operation. New development, redevelopment, or other infrastructure related to growth projections in the SCAG 2020-2045 RTP/SCS would also be required to be consistent with local planning documents and policies and to comply with local ordinances and regulations, including those related to visual character and quality, scenic quality, and public views. Therefore, the incremental effects of the alignments and stations, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact related to aesthetics would be less than significant.

3.19.2.2 HOLLYWOOD BOWL DESIGN OPTION

Less than Significant Impact. The existing visual character in the area of the Hollywood Bowl Design Option would not substantially change, and the quality of views in terms of visibility beyond the design option, including the Hollywood Bowl Station, would not be substantially obstructed. The design option would be primarily underground, and the above-surface features would be absorbed into the broader views that already include urbanized views. The station would not obstruct or substantially obstruct existing views. The design option would be consistent with local planning documents and would comply with local ordinances and regulations.

[1]The SCAG Tier 2 Transportation Analysis Zones (TAZs) were developed based on U.S. Census tract boundaries and provide the geographical areas to conduct highly detailed traffic analysis and predictions with SCAG's transportation model. The TAZs are generally sized and shaped to provide a relatively homogenous type of land use and activity.

The design option would not produce a substantial amount of light and glare, and it would comply with Metro and other local lighting ordinances during construction and operation. New development, redevelopment, or other infrastructure related to growth projections in the SCAG 2020-2045 RTP/SCS would also be required to be consistent with local planning documents and policies and to comply with local ordinances and regulations, including those related to visual character and quality, scenic quality, and public views. Therefore, the incremental effects of the Hollywood Bowl Design Option, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact related to aesthetics would be less than significant.

3.19.2.3 MAINTENANCE AND STORAGE FACILITY

Less than Significant Impact. The existing visual character in the area of the MSF would not substantially change, and the quality of views in terms of visibility beyond the MSF would not be substantially obstructed. The MSF would be consistent with local planning documents and would comply with local ordinances and regulations. Any light and glare associated with the MSF would be a negligible addition to existing light and glare because the adjacent areas are industrial, with similar light intensity and conditions, and it would comply with Metro and other local lighting ordinances during construction and operation. New development, redevelopment, or other infrastructure related to growth projections in the SCAG 2020-2045 RTP/SCS would also be required to be consistent with local planning documents and policies and to comply with local ordinances and regulations, including those related to visual character and quality, scenic quality, and public views. Therefore, the incremental effects of the MSF, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact related to aesthetics would be less than significant.

3.19.3 AIR QUALITY

The South Coast Air Quality Management District (SCAQMD) has developed guidance regarding assessment of cumulative air quality impacts. The SCAQMD's August 2003 White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution asserts that:

> "projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant" (SCAQMD 2003).

Attainment of the air quality standards is accomplished at the regional level, and SCAQMD guidance indicates that projects with mass daily emissions below the SCAQMD screening thresholds would not generate sufficient air pollution to render potential cumulative impacts as significant. SCAQMD's air quality significance thresholds acknowledge regional sources already contributing to nonattainment and other current and future individual projects. The air quality cumulative impacts analysis relies on SCAQMD guidance and significance thresholds to determine whether cumulative impacts would be significant in the region, including the 0.5-mile cumulative analysis RSA described above.

3.19.3.1 ALIGNMENTS AND STATIONS

Less than Significant Impact. Construction of the alignments and stations would generate emissions of air pollutants through the use of heavy-duty off-road equipment and on-road vehicles. In addition to exhaust fumes, off-road equipment would produce fugitive emissions, including dust during ground disturbance and material movement. On-road vehicles would produce fugitive re-entrained road dust. As described above, SCAQMD project-specific and cumulative significance thresholds are the same, and SCAQMD guidance indicates that projects that do not exceed the significance thresholds would not generate sufficient air pollution to render potential cumulative impacts as significant (SCAQMD 2003). Construction of the alignments and stations would not generate mass daily emissions in excess of any regional-scale SCAQMD threshold for individual projects under CEQA, nor would it generate localized mass daily emissions in excess of the SCAQMD Localized Significance Thresholds, as discussed under Impact AQ-2 and Impact AQ-3 in Section 3.3 of Chapter 3.

The alignments and stations would not contribute to an exacerbation of air quality violations or emit cumulatively considerable quantities of pollutants for which the South Coast Air Basin is currently designated nonattainment, and they would not expose sensitive receptors to substantial localized pollutant concentrations. Therefore, construction of the alignments and stations would result in a less than significant cumulative impact.

Following completion of construction activities, long-term operation of the alignments and stations would not introduce a new substantial stationary, area, or mobile source of air pollutant emissions into the South Coast Air Basin. The primary effect of operation of the alignments and stations on regional air quality would be the reduction of on-road vehicle miles traveled (VMT) resulting from increased transit ridership. Operation of the alignments and stations would reduce overall emissions of air pollutants within the South Coast Air Basin through the reduction of passenger vehicle trips. Additionally, the K Line Northern Extension (KNE) project, including the alignments and stations, is included in the conforming SCAG 2020-2045 RTP/SCS. Therefore, the incremental effects of the alignments and stations, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.3.2 HOLLYWOOD BOWL DESIGN OPTION

Less than Significant Impact. Construction of the Hollywood Bowl Design Option would generate emissions of air pollutants through the use of heavy-duty off-road equipment and on-road vehicles. In addition to exhaust fumes, off-road equipment would produce fugitive emissions, including dust during ground disturbance and material movement. On-road vehicles would produce fugitive re-entrained road dust. As described above, SCAQMD project-specific and cumulative significance thresholds are the same, and SCAQMD guidance indicates that projects that do not exceed the significance thresholds would not generate sufficient air pollution to render potential cumulative impacts as significant (SCAQMD 2003). Construction of the design option, including the Hollywood Bowl Station, would not generate mass daily emissions in excess of any regional-scale SCAQMD threshold for individual projects under CEQA, nor would it generate localized mass daily emissions in excess of the SCAQMD Localized Significance Thresholds, as discussed under Impact AQ-2 and Impact AQ-3 in Section 3.3 of Chapter 3.

The design option would not contribute to an exacerbation of air quality violations or emit cumulatively considerable quantities of pollutants for which the South Coast Air Basin is currently designated nonattainment, and it would not expose sensitive receptors to substantial localized pollutant concentrations. Therefore, construction of the design option would result in a less than significant cumulative impact.

Following completion of construction activities, long-term operation of the design option would not introduce a new substantial stationary, area, or mobile source of air pollutant emissions into the South Coast Air Basin. Implementation of the design option would not appreciably increase or decrease ridership of the light rail system, nor would it be expected to appreciably increase or decrease VMT in the RSA relative to the alignments and stations; as a result, there was no change to regional vehicle traffic emissions estimates as a result of the design option. Additionally, KNE, including the design option, is included in the conforming SCAG 2020-2045 RTP/SCS. Therefore, the incremental effects of the Hollywood Bowl Design Option, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.3.3 MAINTENANCE AND STORAGE FACILITY

Less than Significant Impact. Construction of the MSF would generate emissions of air pollutants through the use of heavy-duty off-road equipment and on-road vehicles. In addition to exhaust fumes, off-road equipment would produce fugitive emissions, including dust during ground disturbance and material movement. On-road vehicles would produce fugitive re-entrained road dust. As described above, SCAQMD project-specific and cumulative significance thresholds are the same, and SCAQMD guidance indicates that projects that do not exceed the significance thresholds would not generate sufficient air pollution to render potential cumulative impacts as significant (SCAQMD 2003). Construction of the MSF would not generate mass daily emissions in excess of any regional-scale SCAQMD threshold for individual projects under CEQA, nor would it generate localized mass daily emissions in excess of the SCAQMD Localized Significance Thresholds, as discussed under Impact AQ-2 and Impact AQ-3 in Section 3.3 of Chapter 3.

The MSF would not contribute to an exacerbation of air quality violations or emit cumulatively considerable quantities of pollutants for which the South Coast Air Basin is currently designated nonattainment, and it would not expose sensitive receptors to substantial localized pollutant concentrations. Therefore, construction of the MSF would result in a less than significant cumulative impact.

Operation of an MSF is essential in maintaining a reliable light rail system. The MSF would generate emissions of air pollutants through the use of equipment, use of natural gas for heating and cooling, use of architectural coatings, and use of consumer products. Emissions from operation of the MSF would be below the applicable regional and localized SCAQMD thresholds. Therefore, the incremental effects of the MSF, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.4 BIOLOGICAL RESOURCES

There is an existing cumulative impact in the RSA related to biological resources. The cumulative setting for birds protected under the Migratory Birds Treaty Act is considered to be nesting and foraging habitat, and it includes trees within the RSA.

3.19.4.1 ALIGNMENTS AND STATIONS

Less than Significant Impact. Construction and operation of the alignments and stations could result in significant impacts on migratory nesting birds and protected native and/or ornamental trees. Existing and continuing development contributes to cumulative impacts on migratory nesting bird species by altering nesting and foraging habitat, including trees, within the RSA. Nesting and roosting substrate removal due to current and future development in the vicinity of the project is the biggest threat to bird species (U.S. Fish and Wildlife Service 2023). Cumulative impacts, such as removal of protected trees protected under local ordinances and laws, have the potential to occur within the RSA. In addition, removal and/or trimming of existing trees resulting from existing and continuing development contributes to cumulative impacts on tree communities within the region. The project, combined with projected growth included in adopted local, regional, or statewide plans, or related documents, could contribute to this existing cumulative impact.

However, as discussed in Section 3.4 of Chapter 3, project-specific mitigation measure MM BIO-1 would mitigate significant impacts to migratory nesting birds during construction and operational activities by ensuring compliance with the Migratory Bird Treaty Act and the California Fish and Game Code (Sections 2126, 3503, 3513, and 3800). Project-specific mitigation measure MM BIO-2 would mitigate significant impacts on locally protected native and/or ornamental trees during construction activities by ensuring the protection of native and ornamental protected trees. There would be little to no tree and vegetation removal expected during operational activities. With implementation of these mitigation measures, construction and operational activities associated with the alignments and stations would not contribute to the existing cumulative impact in a meaningful way. Therefore, the incremental effects of the alignments and stations, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.4.2 HOLLYWOOD BOWL DESIGN OPTION

Less than Significant Impact. Construction and operation of the Hollywood Bowl Design Option could result in significant impacts on migratory nesting birds and protected native and/or ornamental trees. Existing and continuing development contributes to cumulative impacts on migratory nesting bird species by altering nesting and foraging habitat, including trees, within the RSA. Nesting and roosting substrate removal due to current and future development in the vicinity of the project is the biggest threat to bird species (U.S. Fish and Wildlife Service 2023). Cumulative impacts, such as removal of protected trees protected under local ordinances and laws, have the potential to occur within the RSA. In addition, removal and/or trimming of existing trees resulting from existing and continuing development contributes to cumulative impacts on tree communities within the region. The project, combined with

projected growth included in adopted local, regional, or statewide plans, or related documents, could contribute to this existing cumulative impact.

However, as discussed in Section 3.4 of Chapter 3, project-specific mitigation measure MM BIO-1 would mitigate significant impacts to migratory nesting birds during construction and operational activities by ensuring compliance with the Migratory Bird Treaty Act and the California Fish and Game Code (Sections 2126, 3503, 3513, and 3800). Project-specific mitigation measure MM BIO-2 would mitigate significant impacts on locally protected native and/or ornamental trees during construction activities by ensuring the protection of native and ornamental protected trees. There would be little to no tree and vegetation removal expected during operational activities. With implementation of these mitigation measures, construction and operational activities associated with the design option would not contribute to the existing cumulative impact in a meaningful way. Therefore, the incremental effects of the Hollywood Bowl Design Option, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.4.3 MAINTENANCE AND STORAGE FACILITY

Less than Significant Impact. Construction and operation of the MSF could result in significant impacts on migratory nesting birds and protected native and/or ornamental trees. Existing and continuing development contributes to cumulative impacts on migratory nesting bird species by altering nesting and foraging habitat, including trees, within the RSA. Nesting and roosting substrate removal due to current and future development in the vicinity of the project is the biggest threat to bird species (U.S. Fish and Wildlife Service 2023). Cumulative impacts, such as removal of protected trees protected under local ordinances and laws, have the potential to occur within the RSA. In addition, removal and/or trimming of existing trees resulting from existing and continuing development contributes to cumulative impacts on tree communities within the region. The project, combined with projected growth included in adopted local, regional, or statewide plans, or related documents, could contribute to this existing cumulative impact.

However, as discussed in Section 3.4 of Chapter 3, project-specific mitigation measure MM BIO-1 would mitigate significant impacts to migratory nesting birds during construction and operational activities by ensuring compliance with the Migratory Bird Treaty Act and the California Fish and Game Code (Sections 2126, 3503, 3513, and 3800). Project-specific mitigation measure MM BIO-2 would mitigate significant impacts on locally protected native and/or ornamental trees during construction activities by ensuring the protection of native and ornamental protected trees. There would be little to no tree and vegetation removal expected during operational activities. With implementation of these mitigation measures, construction and operational activities associated with the MSF would not contribute to the existing cumulative impact in a meaningful way. Therefore, the incremental effects of the MSF, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.5 COMMUNITIES, POPULATION, AND HOUSING

3.19.5.1 ALIGNMENTS AND STATIONS

Less than Significant Impact. Any growth associated with construction and operation of the alignments and stations in the communities and neighborhoods within the station RSAs would be in highly urbanized areas. The alignments and stations are anticipated to enhance circulation and connectivity in the region and improve connections with transit stations and other pedestrian and bike facilities. The projections in the SCAG 2020-2045 RTP/SCS also reflect communities and neighborhoods located within the station RSAs that would accommodate projected population, household, and employment growth. Changes in demographics associated with new development opportunities would be consistent with the SCAG 2020-2045 RTP/SCS growth projections because they are based on the general plan land use designations of the Cities of Los Angeles and West Hollywood.

The alignments and stations would not include new or temporary housing or businesses that would directly result in population growth. The alignments and stations are intended to increase the overall accessibility and mobility of persons within the station RSAs and would not directly result in population growth in surrounding communities. In addition, the alignments and stations would not require acquisition of residential parcels and would not displace existing people or housing, necessitating the construction of replacement housing elsewhere. Therefore, the incremental effects of the alignments and stations, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.5.2 HOLLYWOOD BOWL DESIGN OPTION

Less than Significant Impact. Any growth associated with construction and operation of the Hollywood Bowl Design Option in the communities and neighborhoods within the station RSA would be in highly urbanized areas. The design option is anticipated to enhance circulation and connectivity in the region and improve connections with transit stations and other pedestrian and bike facilities. The projections in the SCAG 2020-2045 RTP/SCS also reflect communities and neighborhoods located within the station RSA that would accommodate projected population, household, and employment growth. Changes in demographics associated with new development opportunities would be consistent with the SCAG 2020-2045 RTP/SCS growth projections because they are based on the general plan land use designations of the City of Los Angeles.

The design option would not include new or temporary housing or businesses that would directly result in population growth. The design option is intended to increase the overall accessibility and mobility of persons within the station RSA and would not directly result in population growth in surrounding communities. In addition, the design option would not require acquisition of residential parcels and would not displace existing people or housing, necessitating the construction of replacement housing elsewhere. Therefore, the incremental effects of the Hollywood Bowl Design Option, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.5.3 MAINTENANCE AND STORAGE FACILITY

Less than Significant Impact. Any growth associated with construction and operation of the MSF in the communities and neighborhoods within the RSA would be in highly urbanized areas. The projections in the SCAG 2020-2045 RTP/SCS also reflect communities and neighborhoods located within the RSA that would accommodate projected population, household, and employment growth. Changes in demographics associated with new development opportunities would be consistent with the SCAG 2020-2045 RTP/SCS growth projections because they are based on the general plan land use designations of the City of Los Angeles.

The MSF would not include new or temporary housing or businesses that would directly result in population growth. The MSF would not directly result in population growth in surrounding communities. In addition, the MSF would not require acquisition of residential parcels and would not displace existing people or housing, necessitating the construction of replacement housing elsewhere. Therefore, the incremental effects of the MSF, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.6 CULTURAL AND PALEONTOLOGICAL RESOURCES

3.19.6.1 CULTURAL RESOURCES

The cumulative RSAs for archaeological and built environment cumulative analysis is the same as the project RSA described in Section 3.6 of Chapter 3, and it includes areas where cultural resources are protected by federal, state, and local regulations. The built environment RSA is defined as the area necessary to construct, operate, and maintain the alignments and design option, and includes all public right-of-way and private property acquisition and construction areas, and all parcels adjacent to permanent site improvements and facilities. The archaeological RSA encompasses areas where temporary or permanent ground disturbance may occur and includes all public right-of-way, private property acquisition, and construction areas.

3.19.6.1.1 ALIGNMENTS AND STATIONS

3.19.6.1.1.1 HISTORICAL RESOURCES

Significant and Unavoidable Impact. Construction of the alignments and stations would require the acquisition and demolition of historical resources, which would be a significant impact. Development of the alignments and stations in combination with projected future development in adjacent areas would increase the potential for impacts to historical resources and could contribute to the loss of such resources in the region. The potential that other development, consistent with local plans, would affect historical resources during construction is determined by a variety of factors, including the type of development that is proposed. Therefore, the incremental effects of the KNE alignments and stations, in combination with projected growth, would be cumulatively considerable, and the cumulative impact would be significant. Implementation of project-specific mitigation measures pertaining to historical resources that would be demolished, as discussed in Section 3.6 of Chapter 3 (MM CUL-1 through MM

CUL-5), would not mitigate cumulative impacts to a less than significant level. Therefore, construction of the KNE alignments and stations would result in a cumulatively significant and unavoidable impact.

3.19.6.1.1.2 ARCHAEOLOGICAL RESOURCES

Less than Significant Impact. The archaeological sensitivity in the RSA ranges from low to moderate, which indicates construction activities associated with the alignments and stations have a low to moderate potential to encounter previously unidentified archaeological resources below the ground surface. In addition, the region contains Native American cultural resources. It is possible these resources could be unearthed during ground-disturbing activities, and construction of the alignments and stations could cause a substantial adverse change in the significance of a unique archaeological resource, which would be a significant impact. The KNE alignments and stations in combination with projected future development located in adjacent areas would increase the potential for impacts to archaeological resources and could contribute to the loss of such resources in the region. The potential that other development, consistent with local plans, would affect archaeological resources during construction is determined by a variety of factors, including the type of development that is proposed. Therefore, the incremental effects of the KNE alignments and stations, in combination with projected growth, would be cumulatively considerable. However, with implementation of project-specific mitigation measures discussed in Section 3.6 of Chapter 3 (MM CUL-5 through MM CUL-8), the cumulative impact would be less than significant.

3.19.6.1.1.3 DISTURBANCE OF HUMAN REMAINS

Less than Significant Impact. Unknown human burials may exist within the RSA, and it is possible these burials could be encountered during excavation activities associated with construction of the alignments and stations. Therefore, the alignments and stations have the potential to cause a significant impact related to human remains. The alignments and stations in combination with projected future development located in adjacent areas would increase the potential for impacts to human remains and could contribute to the loss of such resources in the region. The potential that other development, consistent with local plans, would affect human remains during construction is determined by a variety of factors, including the type of development that is proposed. Therefore, the incremental effects of the alignments and stations, in combination with projected growth, would be cumulatively considerable. However, with implementation of the project-specific mitigation measures discussed in Section 3.6 of Chapter 3 (MM CUL-5 and MM CUL-9), the cumulative impact would be less than significant.

3.19.6.1.2 HOLLYWOOD BOWL DESIGN OPTION

3.19.6.1.2.1 HISTORICAL RESOURCES

Less than Significant Impact. The archaeological sensitivity in the Hollywood Bowl Design Option RSA ranges from low to moderate, which indicates construction activities associated with the design option have a low to moderate potential to encounter previously unidentified archaeological resources below the ground surface. In addition, the region contains Native American cultural resources. It is possible these resources could be unearthed during ground-disturbing activities, causing a substantial adverse

change in the significance of a unique archaeological resource, which would be a significant impact. Development of the design option in combination with projected future development in adjacent areas would increase the potential for impacts to historical resources and could contribute to the loss of such resources in the region. The potential that other development, consistent with local plans, would affect historical resources during construction is determined by a variety of factors, including the type of development that is proposed. Therefore, the incremental effects of the Hollywood Bowl Design Option, in combination with projected growth, would be cumulatively considerable, and the cumulative impact would be significant. However, with implementation of project-specific mitigation measures pertaining to historical resources discussed in Section 3.6 of Chapter 3 (MM CUL-1, MM CUL-2, and MM CUL-5) the cumulative impact would be less than significant.

3.19.6.1.2.2 ARCHAEOLOGICAL RESOURCES

Less than Significant Impact. The archaeological sensitivity in the Hollywood Bowl Design Option RSA ranges from low to moderate, which indicates construction activities associated with the design option have a low to moderate potential to encounter previously unidentified archaeological resources below the ground surface. In addition, the region contains Native American cultural resources. It is possible these resources could be unearthed during ground-disturbing activities, and construction of the design option could cause a substantial adverse change in the significance of a unique archaeological resource, which would be a significant impact. The design option in combination with projected future development located in adjacent areas would increase the potential for impacts to archaeological resources and could contribute to the loss of such resources in the region. The potential that other development, consistent with local plans, would affect archaeological resources during construction is determined by a variety of factors, including the type of development that is proposed. Therefore, the incremental effects of the Hollywood Bowl Design Option, in combination with projected growth, would be cumulatively considerable. However, with implementation of project-specific mitigation measures discussed in Section 3.6 of Chapter 3 (MM CUL-5 through MM CUL-8), the cumulative impact would be less than significant.

3.19.6.1.2.3 DISTURBANCE OF HUMAN REMAINS

Less than Significant Impact. Unknown human burials may exist within the Hollywood Bowl Design Option RSA, and it is possible these burials could be encountered during excavation activities associated with construction. Therefore, the design option has the potential to cause a significant impact related to human remains. The design option in combination with projected future development located in adjacent areas would increase the potential for impacts to human remains and could contribute to the loss of such resources in the region. The potential that other development, consistent with local plans, would affect human remains during construction is determined by a variety of factors, including the type of development that is proposed. Therefore, the incremental effects of the design option, in combination with projected growth, would be cumulatively considerable. However, with implementation of the project-specific mitigation measures discussed in Section 3.6 of Chapter 3 (MM CUL-5 and MM CUL-9), the cumulative impact would be less than significant.

3.19.6.1.3 MAINTENANCE AND STORAGE FACILITY

3.19.6.1.3.1 HISTORICAL RESOURCES

No Impact. No built environment resources are located in the RSA for the MSF that meet the NRHP/CRHR criteria for eligibility and that are considered historical resources for the purposes of CEQA. Therefore, the MSF would not have an incremental effect in combination with projected growth, and there would be no cumulative impact.

3.19.6.1.3.2 ARCHAEOLOGICAL RESOURCES

Less than Significant Impact. Because the MSF Archaeological RSA is almost entirely developed, the minimal and/or shallow construction work that would be required would be unlikely to encounter intact unique archaeological resources. Construction of the MSF has a low potential to cause a substantial adverse change in the significance of a unique archaeological resource. Therefore, the incremental effects of the MSF, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.6.1.3.3 DISTURBANCE OF HUMAN REMAINS

Less than Significant Impact. Unknown human burials may exist within the MSF RSA, and it is possible these burials could be encountered during excavation activities associated with construction of the MSF. Therefore, the MSF has the potential to cause a significant impact related to human remains. The MSF in combination with projected future development located in adjacent areas would increase the potential for impacts to human remains and could contribute to the loss of such resources in the region. The potential that other development, consistent with local plans, would affect human remains during construction is determined by a variety of factors, including the type of development that is proposed. Therefore, the incremental effects of the MSF, in combination with projected growth, would be cumulatively considerable. However, with implementation of the project-specific mitigation measures discussed in Section 3.6 of Chapter 3 (MM CUL-5 and MM CUL-9), the cumulative impact would be less than significant.

3.19.6.2 PALEONTOLOGICAL RESOURCES

The cumulative RSA for the paleontological cumulative analysis is the same as the project RSA described in Section 3.6 of Chapter 3. It encompasses areas where temporary or permanent ground disturbance may occur and includes all public right-of-way, private property acquisition, and construction areas for the alignments and stations, the design option, and the MSF where paleontological resources are protected by state and local regulations.

3.19.6.2.1 ALIGNMENTS AND STATIONS

Significant and Unavoidable Impact. Part of the RSA is in an area of high paleontological potential. The RSA contains a Natural History Museum of Los Angeles County vertebrate fossil locality, as well as many other paleontological localities. Therefore, construction of the alignments and stations could directly or indirectly

destroy a unique paleontological resource, site, or unique geologic feature, resulting in a significant impact. Development of the alignments and stations in combination with projected future development in adjacent areas would increase the potential for impacts to paleontological resources and could contribute to the loss of such resources in the region. The potential that other development, consistent with local plans, would affect paleontological resources during construction is determined by a variety of factors, including the type of development that is proposed. Therefore, the incremental effects of the alignments and stations, in combination with projected growth, would be cumulatively considerable, and the cumulative impact would be significant. Implementation of project-specific mitigation measures pertaining to paleontological resources, as discussed in Section 3.6 of Chapter 3 (MM PAL-1, MM PAL-2, and MM PAL-3), would reduce impacts associated with construction of the stations to less than significant levels. However, unlike underground station construction, tunnel boring machines (TBMs) would be used during construction of the tunnels. Because projects cannot implement paleontological resources monitoring in areas where TBMs are used, impacts to paleontological resources resulting from TBM operation would not be mitigated to a less than significant level. Therefore, construction of the alignments and stations would result in a cumulatively significant and unavoidable impact.

3.19.6.2.2 HOLLYWOOD BOWL DESIGN OPTION

Significant and Unavoidable Impact. The Hollywood Bowl Design Option RSA is in an area of high paleontological potential. Therefore, construction of the design option could directly or indirectly destroy a unique paleontological resource, site, or unique geologic feature, resulting in a significant impact. Development of the design option in combination with projected future development in adjacent areas would increase the potential for impacts to paleontological resources and could contribute to the loss of such resources in the region. The potential that other development, consistent with local plans, would affect paleontological resources during construction is determined by a variety of factors, including the type of development that is proposed. Therefore, the incremental effects of the design option, in combination with projected growth, would be cumulatively considerable, and the cumulative impact would be significant. Implementation of project-specific mitigation measures pertaining to paleontological resources, as discussed in Section 3.6 of Chapter 3 (MM PAL-1, MM PAL-2, and MM PAL-3), would reduce impacts associated with construction of the design option to less than significant levels. Unlike the underground stations for the alignments, which would use cut-and-cover construction, the sequential excavation method (SEM) would be used during construction of the design option tunnels and the Hollywood Bowl Station. Because projects cannot implement paleontological resources monitoring in areas where SEM is used (as with TBM), impacts to paleontological resources resulting from SEM excavation would not be mitigated to a less than significant level. Therefore, construction of the Hollywood Bowl Design Option would result in a cumulatively significant and unavoidable impact.

3.19.6.2.3 MAINTENANCE AND STORAGE FACILITY

Less than Significant Impact. The MSF site is in an area with high paleontological potential, and paleontological resources are known to exist in the vicinity. Therefore, construction of the MSF could directly or indirectly destroy a unique paleontological resource, site, or unique geologic feature, resulting in a significant impact. The potential that other development would affect these resources during

construction is determined by a variety of factors, including the type of development that is proposed. Therefore, the incremental effects of the MSF during construction, in combination with projected growth, would be cumulatively considerable. However, with implementation of project-specific mitigation measures during construction, as discussed in Section 3.6 of Chapter 3 (MM PAL-1, MM PAL-2, and MM PAL-3), the cumulative impact would be less than significant.

3.19.7 ENERGY

The geographical cumulative impact area for the KNE energy analysis is defined as the utility service areas for the alignments and stations, the Hollywood Bowl Design Option, and the MSF. In addition, for assessing VMT reduction that would occur with project implementation, the entire SCAG region is included in the analysis.

3.19.7.1 ALIGNMENTS AND STATIONS

Less than Significant Impact. The alignments and stations and projected future development in the area would comply with applicable energy efficiency and management codes and regulations, including, but not limited to, the California Building Standards Code Energy Efficiency Standards (Title 24 Parts 6 and 11) and other provisions of local planning initiatives from Los Angeles County, the City of Los Angeles, and the City of West Hollywood, which would limit the inefficient or wasteful consumption of energy during construction and operational activities. All new Metro projects, including the alignments and stations, would be implemented in accordance with the Metro Green Construction Policy per the project measures described in Section 3.7 of Chapter 3. These include project measure PM AQ-1, the commitments in the Moving Beyond Sustainability Strategic Plan per project measure PM AQ-3, and the Metro Design Standards per project measure PM AQ-4, which control expenditure of energy resources to the maximum extent feasible. There is no present regional shortage of energy resources for land use and transportation development planning and implementation, and no foreseeable strains on existing resources have been identified. Moreover, KNE is included in the approved SCAG 2020-2045 Connect SoCal RTP/SCS, and thus has already been considered in the forecasted regional energy requirements. In addition, as described in Impact ENG-1 described in Section 3.7 of Chapter 3, operation of the alignments and stations would result in a reduction of energy consumption compared to the 2045 without Project Conditions. Therefore, the incremental effects of the alignments and stations, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.7.2 HOLLYWOOD BOWL DESIGN OPTION

Less than Significant Impact. The Hollywood Bowl Design Option and projected future development in the area would comply with applicable energy efficiency and management codes and regulations, including, but not limited to, the California Building Standards Code Energy Efficiency Standards (Title 24 Parts 6 and 11) and other provisions of local planning initiatives from Los Angeles County and the City of Los Angeles, which would limit the inefficient or wasteful consumption of energy during construction and operational activities. All new Metro projects, including the design option, would be implemented in accordance with the Metro Green Construction Policy per the project measures described in Section 3.7 of Chapter 3. These include project measure PM AQ-1, the commitments in the Moving Beyond Sustainability Strategic

Plan per project measure PM AQ-3, and the Metro Design Standards per project measure PM AQ-4, which control expenditure of energy resources to the maximum extent feasible. There is no present regional shortage of energy resources for land use and transportation development planning and implementation, and no foreseeable strains on existing resources have been identified. In addition, the design option would only be implemented with an alignment to increase rider connectivity as part of KNE, resulting in an overall net reduction in regional energy consumption due to the reduced VMT in the region compared to the 2045 without Project Conditions. Therefore, the incremental effects of the Hollywood Bowl Design Option, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.7.3 MAINTENANCE AND STORAGE FACILITY

Less than Significant Impact. The MSF and projected future development in the area would comply with applicable energy efficiency and management codes and regulations, including, but not limited to, the California Building Standards Code Energy Efficiency Standards (Title 24 Parts 6 and 11) and other provisions of local planning initiatives from Los Angeles County and the City of Los Angeles, which would limit the inefficient or wasteful consumption of energy during construction and operational activities. All new Metro projects, including the MSF, would be implemented in accordance with the Metro Green Construction Policy per the project measures described in Section 3.7 of Chapter 3. These include project measure PM AQ-1, the commitments in the Moving Beyond Sustainability Strategic Plan per project measure PM AQ-3, and the Metro Design Standards per project measure PM AQ-4, which control expenditure of energy resources to the maximum extent feasible. There is no present regional shortage of energy resources for land use and transportation development planning and implementation, and no foreseeable strains on existing resources have been identified. Therefore, the incremental effects of the MSF, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.8 GEOLOGY AND SOILS

3.19.8.1 ALIGNMENTS AND STATIONS

Less than Significant Impact. Impacts related to geology, soils, seismicity, and mineral resources are generally site-specific and localized. During construction and operation, the alignments and stations would not expose people or structures to the risk of loss, injury, or death involving fault rupture or seismic hazards, including liquefaction or landslides, and would not result in impacts related to soil erosion, unstable or expansive soils, or loss of access to mineral resources and recovery sites. The alignments and stations would comply with standards included in the Metro Rail Design Criteria (as set forth in project measure PM GEO-1 in Section 3.8 of Chapter 3), with all applicable state and local guidelines, and with other mandatory design requirements related to geologic, subsurface, and seismic hazards. Projected future development would also be required to comply with all applicable standards, requirements, and guidance. Therefore, the incremental effects of the alignments and stations, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.8.2 HOLLYWOOD BOWL DESIGN OPTION

Less than Significant Impact. Impacts related to geology, soils, seismicity, and mineral resources are generally site-specific and localized. During construction and operation, the Hollywood Bowl Design Option would not expose people or structures to the risk of loss, injury, or death involving fault rupture or seismic hazards, including liquefaction or landslides, and would not result in impacts related to soil erosion, unstable or expansive soils, or loss of access to mineral resources and recovery sites. The design option would comply with standards included in the Metro Rail Design Criteria (as set forth in project measure PM GEO-1 in Section 3.8 of Chapter 3), with all applicable state and local guidelines, and with other mandatory design requirements related to geologic, subsurface, and seismic hazards. Projected future development would also be required to comply with all applicable standards, requirements, and guidance. Therefore, the incremental effects of the Hollywood Bowl Design Option, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.8.3 MAINTENANCE AND STORAGE FACILITY

Less than Significant Impact. Impacts related to geology, soils, seismicity, and mineral resources are generally site-specific and localized. During construction and operation, the MSF would not expose people or structures to the risk of loss, injury, or death involving fault rupture or seismic hazards, including liquefaction or landslides, and would not result in impacts related to soil erosion, unstable or expansive soils, or loss of access to mineral resources and recovery sites. The MSF would comply with standards included in the Metro Rail Design Criteria (as set forth in project measure PM GEO-1 in Section 3.8 of Chapter 3), with all applicable state and local guidelines, and with other mandatory design requirements related to geologic, subsurface, and seismic hazards. Projected future development would also be required to comply with all applicable standards, requirements, and guidance. Therefore, the incremental effects of the MSF, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.9 GREENHOUSE GAS EMISSIONS

The cumulative RSA for greenhouse gas (GHG) emissions is the same as the project RSA described in Section 3.9 of Chapter 3. It is defined as the SCAG region, which encompasses Los Angeles, Orange, Riverside, Ventura, San Bernardino, and Imperial Counties.

3.19.9.1 ALIGNMENTS AND STATIONS

Less than Significant Impact. GHG emissions persist in the atmosphere for long periods and build up over time such that project-level GHG impact analysis is based on whether a project's incremental contribution to the effects of climate change would be cumulatively considerable. Therefore, individual project-level GHG emissions must be considered together and in conjunction with existing GHG levels and with reasonably foreseeable future GHG emissions when assessing project-level GHG impacts. The alignments and stations would generate direct GHG emissions during temporary construction activities from off-road equipment and on-road vehicle exhaust, as well as long-term indirect GHG emissions through energy use (e.g., energy generated for light rail transit propulsion, lighting and accessory equipment at station

platforms, and MSF operations). However, GHG emissions from on-road motor vehicles would be substantially reduced through transportation mode shift to transit as compared to 2045 without Project Conditions. The alignments and stations would not conflict with GHG emissions-reduction plans and policies and would contribute to California's goal to increase mass transit under the Assembly Bill 32 Scoping Plan. Operation of the alignments and stations would enhance regional transportation systems and contribute to planning efforts to reduce VMT and GHG emissions from transportation sources. Therefore, the incremental effects of the alignments and stations, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.9.2 HOLLYWOOD BOWL DESIGN OPTION

Less than Significant Impact. GHG emissions persist in the atmosphere for long periods and build up over time such that project-level GHG impact analysis is based on whether a project's incremental contribution to the effects of climate change would be cumulatively considerable. Therefore, individual project-level GHG emissions must be considered together and in conjunction with existing GHG levels and with reasonably foreseeable future GHG emissions when assessing project-level GHG impacts. The Hollywood Bowl Design Option would generate direct GHG emissions during temporary construction activities from off-road equipment and on-road vehicle exhaust, as well as long-term indirect GHG emissions through energy use (e.g., energy generated for light rail transit propulsion and lighting and accessory equipment at station platforms). However, implementation of any alignment with the Hollywood Bowl Design Option would substantially reduce GHG emissions from on-road motor vehicles through transportation mode shift to transit as compared to 2045 without Project Conditions. The project would not conflict with GHG emissions-reduction plans and policies and would contribute to California's goal to increase mass transit under the Assembly Bill 32 Scoping Plan. Operation of the project would enhance regional transportation systems and contribute to planning efforts to reduce VMT and GHG emissions from transportation sources. Therefore, the incremental effects of the Hollywood Bowl Design Option, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.9.3 MAINTENANCE AND STORAGE FACILITY

Less than Significant Impact. GHG emissions persist in the atmosphere for long periods and build up over time such that project-level GHG impact analysis is based on whether a project's incremental contribution to the effects of climate change would be cumulatively considerable. Therefore, individual project-level GHG emissions must be considered together and in conjunction with existing GHG levels and with reasonably foreseeable future GHG emissions when assessing project-level GHG impacts. The MSF would generate direct GHG emissions during temporary construction activities from off-road equipment and on-road vehicle exhaust, as well as long-term indirect GHG emissions through energy use (e.g., energy generated lighting, accessory equipment, and other operational activities). However, the MSF is necessary to support operation of the project, which would substantially reduce GHG emissions through transportation mode shift to transit as compared to 2045 without Project Conditions. The project would not conflict with GHG emissions-reduction plans and policies and would contribute to California's goal to increase mass transit under the Assembly Bill 32 Scoping Plan. Operation of the project would enhance regional transportation systems and contribute to planning efforts to reduce VMT and GHG emissions from transportation sources. Therefore,

the incremental effects of the MSF, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.10 GROWTH INDUCING IMPACTS

3.19.10.1 ALIGNMENTS AND STATIONS

Less than Significant Impact. The alignments and stations are intended to increase the overall accessibility and mobility of persons within the station RSAs and would not directly result in population growth within surrounding communities. The alignments and stations could indirectly affect population, housing, and employment growth in combination with other probable future projects in the region. Considered cumulatively, the increases in population, households, or employment could require construction or expansion of new community facilities, including police facilities, fire response facilities, schools, parks, or recreational facilities, or otherwise increase the use of existing facilities. However, the alignments and stations would not introduce new housing or commercial uses, have direct impacts on such facilities, generate new users of facilities, or otherwise increase use of such facilities. Implementation of the alignments and stations would not result in incremental increases that would be cumulatively considerable when considered together with similar impacts from other projected future development.

Similar to KNE, projected future development would be approved solely at the discretion of the Cities of Los Angeles and West Hollywood and would be subject to all applicable requirements and regulations of local jurisdictions. It is anticipated that any potential growth inducing impacts would be addressed and mitigated by restrictions imposed by local jurisdictions, and development around the stations would not occur in an uncontrolled manner. Changes in demographics associated with new development opportunities are anticipated to be consistent with the SCAG-adopted growth projections, which are based on the general plan land use designations of the Cities of Los Angeles and West Hollywood. Therefore, the incremental effects of the alignments and stations, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.10.2 HOLLYWOOD BOWL DESIGN OPTION

Less than Significant Impact. The Hollywood Bowl Design Option is intended to increase the overall accessibility and mobility of persons within the station RSA and would not directly result in population growth within surrounding communities. The design option could indirectly affect population, housing, and employment growth in combination with other probable future projects in the region. Considered cumulatively, the increases in population, households, or employment could require construction or expansion of new community facilities, including police facilities, fire response facilities, schools, parks, or recreational facilities, or otherwise increase the use of existing facilities. However, the design option would not introduce new housing or commercial uses, have direct impacts on such facilities, generate new users of facilities, or otherwise increase use of such facilities. Implementation of the design option would not result in incremental increases that would be cumulatively considerable when considered together with similar impacts from other projected future development.

Similar to KNE, projected future development would be approved solely at the discretion of the City of Los Angeles and would be subject to all applicable requirements and regulations of local jurisdictions. It is anticipated that any potential growth inducing impacts would be addressed and mitigated by restrictions imposed by local jurisdictions, and development around the stations would not occur in an uncontrolled manner. Changes in demographics associated with new development opportunities are anticipated to be consistent with the SCAG-adopted growth projections, which are based on the general plan land use designations of the City of Los Angeles. Therefore, the incremental effects of the Hollywood Bowl Design Option, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.10.3 MAINTENANCE AND STORAGE FACILITY

Less than Significant Impact. The MSF would not include new or temporary housing or businesses that would directly result in population growth. The cumulative impacts of the MSF on population, households, and employment would not be substantial enough to put a burden on nearby resources. Therefore, the incremental effects of the MSF would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.11 HAZARDS AND HAZARDOUS MATERIALS

The cumulative RSA for hazards and hazardous materials is the same as the project RSA described in Section 3.11 of Chapter 3. It is defined as a 0.25-mile radius around the alignments and stations, the Hollywood Bowl Design Option, and the MSF.

3.19.11.1 ALIGNMENTS AND STATIONS

Less than Significant Impact. Construction and operation of the alignments and stations would include implementation of subsurface gas risk-reduction practices. As described in Section 3.11 in Chapter 3, project measure PM HAZ-1 and mitigation measure MM HAZ-1 would avoid and minimize emissions of hazardous materials, substances, and mixtures within 0.25-mile of schools. Projected future development would also follow the applicable federal, state, and local regulations regarding hazardous materials, which would reduce impacts associated with related projects. Therefore, the incremental effects of the alignments and stations, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.11.2 HOLLYWOOD BOWL DESIGN OPTION

Less than Significant Impact. Construction and operation of the Hollywood Bowl Design Option would include implementation of subsurface gas risk-reduction practices. As described in Section 3.11 in Chapter 3, mitigation measure MM HAZ-1 would avoid and minimize emissions of hazardous materials, substances, and mixtures within 0.25 mile of schools. Projected future development would also follow the applicable federal, state, and local regulations regarding hazardous materials, which would reduce impacts associated with related projects. Therefore, the incremental effects of the Hollywood Bowl Design

Option, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.11.3 MAINTENANCE AND STORAGE FACILITY

Less than Significant Impact. There are no schools within a 0.25-mile radius of the MSF. As with the alignments and stations, projected future development would follow applicable federal, state, and local regulations regarding hazardous materials, which would reduce impacts associated with related projects. Therefore, the incremental effects of the MSF, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.12 HYDROLOGY AND WATER QUALITY

3.19.12.1 ALIGNMENTS AND STATIONS

Less than Significant Impact. The hydrology and water resources analysis includes implementation of construction and operational best management practices and flood event protection (as set forth in project measures PM HWQ-1, PM HWQ-2, and PM HWQ-3 in Section 3.12 of Chapter 3). Future development based on growth projections in the SCAG 2020-2045 RTP/SCS would require adherence to the codes and regulations specific to the regulatory framework of each project. In addition, the SCAG 2020-2045 RTP/SCS emphasizes consideration of "urban greening," a multi-benefit land use strategy that improves the relationship between the built and natural environment, on future projects and has benefits of improved water quality, groundwater recharge, and watershed health. This strategy leads to, at a minimum, continued efforts to prioritize low-impact development when feasible and use of project measures to address impacts. Therefore, the incremental effects of the alignments and stations, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.12.2 HOLLYWOOD BOWL DESIGN OPTION

Less than Significant Impact. The hydrology and water resources analysis includes implementation of construction and operational best management practices and flood event protection (as set forth in project measures PM HWQ-1, PM HWQ-2, and PM HWQ-3 in Section 3.12 of Chapter 3). Future development based on growth projections in the SCAG 2020-2045 RTP/SCS would require adherence to the codes and regulations specific to the regulatory framework of each project. In addition, the SCAG 2020-2045 RTP/SCS emphasizes consideration of "urban greening," a multi-benefit land use strategy that improves the relationship between the built and natural environment, on future projects and has benefits of improved water quality, groundwater recharge, and watershed health. This strategy leads to, at a minimum, continued efforts to prioritize low-impact development when feasible and use of project measures to address impacts. Therefore, the incremental effects of the Hollywood Bowl Design Option, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.12.3 MAINTENANCE AND STORAGE FACILITY

Less than Significant Impact. The hydrology and water resources analysis includes implementation of construction and operational best management practices and flood event protection (as set forth in project measures PM HWQ-1, PM HWQ-2, and PM HWQ-3 in Section 3.12 of Chapter 3). Future development based on growth projections in the SCAG 2020-2045 RTP/SCS would require adherence to the codes and regulations specific to the regulatory framework of each project. In addition, the SCAG 2020-2045 RTP/SCS emphasizes consideration of "urban greening," a multi-benefit land use strategy that improves the relationship between the built and natural environment, on future projects and has benefits of improved water quality, groundwater recharge, and watershed health. This strategy leads to, at a minimum, continued efforts to prioritize low-impact development when feasible and use of project measures to address impacts. Therefore, the incremental effects of the MSF, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.13 LAND USE AND PLANNING

3.19.13.1 ALIGNMENTS AND STATIONS

No Impact. The alignments and stations would not divide an established community, would comply with applicable plans, policies, and regulations, and would be compatible with existing and planned land uses within the RSA. The alignments and stations would support regional and local growth projections, as identified in Table 3.19-2, by providing regional transportation access and services in areas with significant population, household, and employment growth, and reducing regional VMT and GHG emissions. Therefore, the alignments and stations would not have an incremental effect in combination with projected growth, and there would be no cumulative impact.

3.19.13.2 HOLLYWOOD BOWL DESIGN OPTION

No Impact. The Hollywood Bowl Design Option would not divide an established community, would comply with applicable plans, policies, and regulations, and would be compatible with existing and planned land uses within the RSA. The design option would support regional and local growth projections, as identified in Table 3.19-2, by providing regional transportation access and services in areas with significant population, household, and employment growth, and reducing regional VMT and GHG emissions. Therefore, the Hollywood Bowl Design Option would not have an incremental effect in combination with projected growth, and there would be no cumulative impact.

3.19.13.3 MAINTENANCE AND STORAGE FACILITY

No Impact. The MSF would not divide an established community, would comply with applicable plans, policies, and regulations, and would be compatible with existing and planned land uses within the RSA. The MSF is an essential element in supporting the reliable operation of a light rail transit system and would be necessary for the implementation and operation of the project, which would support regional and local growth projections, as identified in Table 3.19-2, by providing regional transportation access and services in areas with significant population, household, and employment growth, and reducing regional

VMT and GHG emissions. Therefore, the MSF would not have an incremental effect in combination with projected growth, and there would be no cumulative impact.

3.19.14 NOISE AND VIBRATION

3.19.14.1 ALIGNMENTS AND STATIONS

Less than Significant Impact. The alignments and stations would cause temporary noise increases during construction. Adherence to local noise ordinances and federal guidelines, and to the guidelines and requirements set forth in project measures PM NOI-1 and PM NOI-2, as well as the requirements of mitigation measure MM NOI-1 described in Section 3.14 in Chapter 3, would avoid or reduce exceedance of noise-level limits. In addition, in order for there to be cumulative noise or vibration impacts, projects must occur at the same time and be in very close proximity to each other, which is unlikely given the construction horizon of the alignments and station. Projected future development would also follow the applicable federal and local regulations regarding noise and vibration, which would reduce the noise and vibration impacts associated with related projects. Therefore, the incremental effects of the alignments and stations, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.14.2 HOLLYWOOD BOWL DESIGN OPTION

Less than Significant Impact. The Hollywood Bowl Design Option would cause temporary noise increases during construction. Adherence to local noise ordinances and federal guidelines, and to the guidelines and requirements set forth in project measures PM NOI-1 and PM NOI-2, as well as the requirements of mitigation measure MM NOI-1 described in Section 3.14 in Chapter 3, would avoid or reduce exceedance of noise-level limits. In addition, in order for there to be cumulative noise or vibration impacts, projects must occur at the same time and be in very close proximity to each other, which is unlikely given the construction horizon of the design option. Projected future development would also follow the applicable federal and local regulations regarding noise and vibration, which would reduce the noise and vibration impacts associated with related projects. Therefore, the incremental effects of the Hollywood Bowl Design Option, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.14.3 MAINTENANCE AND STORAGE FACILITY

Less than Significant Impact. The MSF would cause temporary noise increases during construction. Adherence to local noise ordinances and federal guidelines, and to the guidelines and requirements set forth in project measures PM NOI-1 and PM NOI-2 described in Section 3.14 in Chapter 3 would avoid exceedance of noise-level limits. In addition, in order for there to be cumulative noise or vibration impacts, projects must occur at the same time and be in very close proximity to each other, which is unlikely given the construction horizon of the MSF. Projected future development would also follow the applicable federal and local regulations regarding noise and vibration, which would reduce the noise and vibration impacts associated with related projects. Therefore, the incremental effects of the MSF, in

combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.15 PUBLIC SERVICES AND RECREATION

3.19.15.1 ALIGNMENTS AND STATIONS

Less than Significant Impact. The San Vicente-Fairfax Alignment would require the full acquisition of the Los Angeles County Sheriff's Department West Hollywood Station for a construction staging and TBM launch site; however, with implementation of MM PUB-1, a relocated Sheriff's Station would be operational prior to construction of the San Vicente/Santa Monica Station that would meet the service requirements for the Los Angeles County Sheriff's Department. The alignments and stations would not reduce existing parkland or otherwise require full acquisition of any public facilities. Indirectly, the alignments and stations would provide opportunities for transit-oriented development around the station areas, which could include residential uses to meet the demand identified in Table 3.19-2. Those residential uses may result in an increased demand for local parks and other community facilities, and potentially a demand for additional recreational and other facilities. Because the alignments are located in an already highly urban setting with existing high-density zoning and land use, the potential for substantial changes in residential density as a result of the additional transit access is minimal and population patterns would be consistent with the regionally planned land use projections in Table 3.19-2.

Cumulative development, supported by access provided by the alignments and stations, would contribute to the creation of a complete neighborhood, which would provide residents with convenient access to goods and services, as well as connect with other neighborhoods via a network of pedestrian, bicycle, transit, and vehicle connections. The alignments and stations would be consistent with local land use plans, community/specific plans, and general plans. Future development in the area would be subject to a discretionary review process that would ensure that developments are consistent with the goals and policies of the City of Los Angeles and the City of West Hollywood. When land use impacts of the alignments and stations are combined with anticipated development in the area, the potential impact of the alignments and stations would be consistent with planned land use and development patterns, including provision of parklands and public services. Therefore, the incremental effects of the alignments and stations, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.15.2 HOLLYWOOD BOWL DESIGN OPTION

Less than Significant Impact. The Hollywood Bowl Design Option would not reduce existing parkland or otherwise require full acquisition of any public facilities. The design option would primarily serve the existing use of the Hollywood Bowl and, in combination with other development in the immediately surrounding area, would not reduce existing parkland or require full acquisition of community facilities. While approximately 100 of the 1,270 existing parking spaces at the Hollywood Bowl would be permanently displaced, there are other means of access to the facility and the additional KNE transit service at the new station would provide more capacity for patrons to reach the area.

Because the design option is in an already highly urban setting with existing high-density zoning and land use, the potential for substantial changes in residential density as a result of the additional transit access is minimal and population patterns would be consistent with the regionally planned land use projections in Table 3.19-2.

Cumulative development, supported by access provided by the design option, would contribute to the creation of a complete neighborhood, which would provide residents with convenient access to goods and services, as well as connect with other neighborhoods via a network of pedestrian, bicycle, transit, and vehicle connections. The design option would be consistent with local land use plans, community/specific plans, and general plans. Future development in the area would be subject to a discretionary review process that would ensure that developments are consistent with the goals and policies of the City of Los Angeles. When land use impacts of the design option are combined with anticipated development in the area, the potential impact of the design option would be consistent with planned land use and development patterns, including provision of parklands and public services. Therefore, the incremental effects of the Hollywood Bowl Design Option, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.15.3 MAINTENANCE AND STORAGE FACILITY

No Impact. This cumulative impact analysis considers development of the proposed MSF in conjunction with other development within the vicinity of the MSF in the City of Los Angeles based on growth projections in the SCAG 2020-2045 RTP/SCS. The MSF and other projected future development would be required to conform to the regulations of the City of Los Angeles and would be subject to its development review. The MSF would not require amendments to City of Los Angeles General Plans or Zoning Code. In addition, there are no fire stations, police stations, public schools, parks, or other public facilities within the MSF RSA. Therefore, the MSF would not have an incremental effect in combination with projected growth, and there would be no cumulative impact.

3.19.16 TRANSPORTATION

3.19.16.1 ALIGNMENTS AND STATIONS

Less than Significant Impact. The alignments and stations would be located in a heavily urbanized area that is rapidly developing, as projected in the SCAG 2020-2045 RTP/SCS. Although the precise locations and design of other projected future developments are unknown due to the long-term time frame of KNE, it is possible that other projects will be under construction at the same time and in the same vicinity as the alignments and stations. The potential exists for construction activities, including temporary street closures, to result in cumulatively considerable impacts to the transit, roadway, bicycle, and pedestrian network. However, as described in project measure PM TRA-2 in Section 3.16 in Chapter 3, Metro would develop a Transportation Management Plan in coordination with local jurisdictions, which would provide the opportunity to coordinate street closures with other current construction projects in the vicinity of the alignments. Construction of the alignments and stations would not result in a substantial increase to VMT, create geometric design hazards, or have an impact on emergency access. Therefore, construction

of the alignments and stations would not be cumulatively considerable, and the cumulative impact would be less than significant.

Operation of the alignments and stations would be consistent with regional and local transportation programs, plans, ordinances, and policies and would advance goals pertaining to expansion of the transit network. As a result, operation of the alignments and stations would not contribute to a cumulative impact conflicting with programs, plans, ordinances, or policies. Operation of the alignments and stations also would not contribute to a cumulatively considerable increase in VMT because VMT would decrease compared to the 2045 without Project Conditions. Furthermore, the regional travel demand model that produced the VMT projections accounts for population and employment growth consistent with the 2045 projections in the SCAG 2020-2045 RTP/SCS. Any cumulative impacts pertaining to VMT would have been identified as part of the model projections. Given the alignments and stations would be designed and operated consistent with all applicable standards and design criteria as set forth in project measure PM TRA-1 in Section 3.16 in Chapter 3, operation of the alignments and stations would not have a cumulative impact related to hazards due to geometric design features or incompatible uses. In addition, operation of the alignments and stations would not result in inadequate emergency access and would not have a cumulative impact. Therefore, the incremental effects of the alignments and stations, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.16.2 HOLLYWOOD BOWL DESIGN OPTION

Less than Significant Impact. The Hollywood Bowl Design Option would be located in a heavily urbanized area that is rapidly developing, as projected in the SCAG 2020-2045 RTP/SCS. Although the precise locations and design of other projected future developments are unknown due to the long-term time frame of KNE, it is possible that other projects will be under construction at the same time and in the same vicinity as the design option. The potential exists for construction activities, including temporary street closures, to result in cumulatively considerable impacts to the transit, roadway, bicycle, and pedestrian network. However, as described in project measure PM TRA-2 in Section 3.16 in Chapter 3, Metro would develop a Transportation Management Plan in coordination with local jurisdictions, which would provide the opportunity to coordinate street closures with other current construction projects in the vicinity of the design option. Construction of the design option would not result in a substantial increase to VMT, create geometric design hazards, or have an impact on emergency access. Therefore, construction of the design option would not be cumulatively considerable, and the cumulative impact would be less than significant.

Operation of the design option would be consistent with regional and local transportation programs, plans, ordinances, and policies and would advance goals pertaining to expansion of the transit network. As a result, operation of the design option would not contribute to a cumulative impact conflicting with programs, plans, ordinances, or policies. Operation of the design option also would not contribute to a cumulatively considerable increase in VMT because VMT would decrease compared to the 2045 without Project Conditions. Furthermore, the regional travel demand model that produced the VMT projections accounts for population and employment growth consistent with the 2045 projections in the SCAG 2020-2045 RTP/SCS. Any cumulative impacts pertaining to VMT would have been identified as part of the

model projections. Given the design option would be designed and operated consistent with all applicable standards and design criteria as set forth in project measure PM TRA-1 in Section 3.16 in Chapter 3, operation of the design option would not have a cumulative impact related to hazards due to geometric design features or incompatible uses. In addition, operation of the design option would not result in inadequate emergency access and would not have a cumulative impact. Therefore, the incremental effects of the Hollywood Bowl Design Option, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.16.3 MAINTENANCE AND STORAGE FACILITY

Less than Significant Impact. The MSF would be located in a heavily urbanized area that is rapidly developing, as projected in the SCAG 2020-2045 RTP/SCS. Although the precise locations and design of other projected future developments are unknown due to the long-term time frame of KNE, it is possible that other projects will be under construction at the same time and in the same vicinity as the MSF. The potential exists for construction activities, including temporary street closures, to result in cumulatively considerable impacts to the transit, roadway, bicycle, and pedestrian network. However, as described in project measure PM TRA-2 in Section 3.16 in Chapter 3, Metro would develop a Transportation Management Plan in coordination with local jurisdictions, which would provide the opportunity to coordinate street closures with other current construction projects in the vicinity of the MSF. Construction of the MSF would not result in a substantial increase to VMT, create geometric design hazards, or have an impact on emergency access. Therefore, construction of the MSF would not be cumulatively considerable, and the cumulative impact would be less than significant.

Operation of the MSF would be consistent with regional and local transportation programs, plans, ordinances, and policies and would advance goals pertaining to expansion of the transit network. As a result, operation of the MSF would not contribute to a cumulative impact conflicting with programs, plans, ordinances, or policies. Operation of the MSF also would not contribute to a cumulatively considerable increase in VMT because implementation of the KNE would lead to a decrease in VMT compared to the 2045 without Project Conditions, and the MSF is an essential part of KNE. Furthermore, the regional travel demand model that produced the VMT projections accounts for population and employment growth consistent with the 2045 projections in the SCAG 2020-2045 RTP/SCS. Any cumulative impacts pertaining to VMT would have been identified as part of the model projections. Given the MSF would be designed and operated consistent with all applicable standards and design criteria as set forth in project measure PM TRA-1 in Section 3.16 in Chapter 3, operation of the MSF would not have a cumulative impact related to hazards due to geometric design features or incompatible uses. In addition, operation of the MSF would not result in inadequate emergency access. Therefore, the incremental effects of the MSF, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.17 TRIBAL CULTURAL RESOURCES

The cumulative RSA for tribal cultural resources (TCRs) is the same as the project RSA described in Section 3.17 of Chapter 3. It includes areas where TCRs are protected by various federal, state, and local regulations.

3.19.17.1 ALIGNMENTS AND STATIONS

Less than Significant Impact. The alignments and stations have the potential to cause a significant impact related to unknown TCRs. However, implementation of mitigation measures MM TCR-1 and MM TCR-2 discussed in Section 3.17 of Chapter 3 would reduce these potential impacts to a less than significant level. Development of the alignments and stations in combination with the effects of projected growth located in the adjacent area would increase the potential for impacts to TCRs and could contribute to the loss of such resources in the region. The potential that development consistent with local plans would affect TCRs during construction is determined by a variety of factors, including the type of development that is proposed. However, other projects would also be required to implement mitigation measures to reduce impacts to a less than significant level. Therefore, the incremental effects of the alignments and stations, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.17.2 HOLLYWOOD BOWL DESIGN OPTION

Less than Significant Impact. The Hollywood Bowl Design Option has the potential to cause a significant impact related to unknown TCRs. However, implementation of mitigation measures MM TCR-1 and MM TCR-2 discussed in Section 3.17 of Chapter 3 would reduce these potential impacts to a less than significant level. Development of the design option in combination with the effects of projected growth located in the adjacent area would increase the potential for impacts to TCRs and could contribute to the loss of such resources in the region. The potential that development consistent with local plans would affect TCRs during construction is determined by a variety of factors, including the type of development that is proposed. However, other projects would also be required to implement mitigation measures to reduce impacts to a less than significant level. Therefore, the incremental effects of the Hollywood Bowl Design Option, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.17.3 MAINTENANCE AND STORAGE FACILITY

Less than Significant Impact. The MSF has the potential to cause a significant impact related to unknown TCRs. However, implementation of mitigation measures MM TCR-1 and MM TCR-2 discussed in Section 3.17 of Chapter 3 would reduce these potential impacts to a less than significant level. Development of the MSF in combination with the effects of projected growth located in the adjacent area would increase the potential for impacts to TCRs and could contribute to the loss of such resources in the region. The potential that development consistent with local plans would affect TCRs during construction is determined by a variety of factors, including the type of development that is proposed. However, other projects would also be required to implement mitigation measures to reduce impacts to a less than significant level. Therefore, the incremental effects of the MSF, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

3.19.18 UTILITIES AND SERVICE SYSTEMS

The cumulative RSA for utilities and service systems is the service areas of the utility providers that serve the 0.5-mile radius from the stations, the design option, and the MSF, as identified below. Cumulative impacts are analyzed separately for wastewater supply facilities, wastewater facilities, stormwater facilities, electric power, telecommunications, natural gas, and solid waste, as appropriate.

3.19.18.1 ALIGNMENTS AND STATIONS

3.19.18.1.1 WATER SUPPLY FACILITIES

Less than Significant Impact. The RSA for cumulative water supply impacts is the service areas of the Metropolitan Water District (MWD), the Los Angeles Department of Water and Power (LADWP), and the City of Beverly Hills service areas. Projected future development within these service areas would increase demand for water due to net increases in population, square footage, and intensity of uses. Future water demands for each service provider are identified in Section 3.18 of Chapter 3. Construction and operation of the alignments and stations would not substantially increase water usage within the geographical context. MWD, LADWP, and the City of Beverly Hills, through their respective 2020 urban water management plans, have indicated they can accommodate the additional demand for the alignments and stations as well as future growth assumed in the plans. In addition, the implementation of conservation measures on a project-specific basis and water shortage contingency plans would reduce additional water demand. Projected future development would be required to adhere to state and local water regulations and policies. Therefore, the incremental effects of the alignments and stations, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact related to water supply facilities would be less than significant.

3.19.18.1.2 WASTEWATER FACILITIES

Less than Significant Impact. The RSA for cumulative impacts related to wastewater facilities is the service areas of the City of Los Angeles District of Sanitation, the Los Angeles County Sanitary District, and the Hyperion Treatment Plant. Projected future development could expand existing infrastructure and/or increase the need for wastewater treatment facilities. This increase in wastewater treatment facilities would comply with federal, state, and local wastewater-related requirements. Construction and operation of the alignments and stations would not substantially increase wastewater treatment demand at the Hyperion Treatment Plant or require expansion of infrastructure by the City of Los Angeles District of Sanitation or the Los Angeles County Sanitary District. Therefore, the incremental effects of the alignments and stations, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact related to the need for additional or expanded wastewater facilities would be less than significant.

3.19.18.1.3 STORMWATER FACILITIES

Less than Significant Impact. The RSA for cumulative impacts related to stormwater is the service area of the Los Angeles County Flood Control District. Projected future development would comply with federal, state, and local stormwater-related regulations and policies. The existing channel and associated

stormwater drains are adequate to accommodate additional stormwater flows from the alignments and stations, and infrastructure currently exists in the City of Los Angeles, City of West Hollywood, and Los Angeles County. If new stormwater drainage facilities are required, they would be required to adhere to federal, state, and local regulations. Therefore, the incremental effects of the alignments and stations, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact related to the need for additional or expanded stormwater facilities would be less than significant.

3.19.18.1.4 ELECTRIC POWER

Less than Significant Impact. The RSA for cumulative impacts related to electric power is the LADWP and Southern California Edison service areas. The amount of electric power consumed by the alignments and stations combined with projected future development would be substantially less than the capacity in the service areas. Therefore, the incremental effects of the alignments and stations, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact related to the need for electric power would be less than significant.

3.19.18.1.5 TELECOMMUNICATION

Less than Significant Impact. The RSA for cumulative impacts related to telecommunication is the service areas of the telecommunication providers within the City of Los Angeles and the City of West Hollywood. Telecommunication facilities are present within the geographic area surrounding the alignments and stations and would be available for other projected future development. If new telecommunication facilities are required, they would be installed in compliance with relevant state and local regulations. Therefore, the incremental effects of the alignments and stations, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact related to the supply of telecommunication services and the need for additional or expanded facilities would be less than significant.

3.19.18.1.6 NATURAL GAS

No Impact. There would be no demand for natural gas from the alignments and stations. Therefore, the alignments and stations would not have an incremental effect in combination with projected growth, and there would be no cumulative impact related to the supply of natural gas and the need for additional or expanded facilities.

3.19.18.1.7 SOLID WASTE

Less than Significant Impact. The RSA for cumulative impacts related to solid waste is the area serviced by the City of Los Angeles and Los Angeles County. The City of Los Angeles and Los Angeles County contract with landfills to process solid waste. Landfills that would serve the alignments and stations are shown in Table 3.18-4 and Table 3.18-5 in Section 3.18 of Chapter 3. The alignments and stations would generate minimal solid waste during operation, and solid waste generated during construction would adhere to state and local regulations. Development of the alignments and stations combined with other projected future development could cumulatively increase demands on solid waste facilities. While the landfills identified in Table 3.18-4 and Table 3.18-5 in Section 3.18 may reach capacity in the future, there is no

indication that would result in a significant cumulative impact to regional landfill capacity. The alignments and stations would not create demand for solid waste services that exceed the capabilities of the local waste management system. Therefore, the incremental effects of the alignments and stations, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact related to solid waste would be less than significant.

3.19.18.2 HOLLYWOOD BOWL DESIGN OPTION

3.19.18.2.1 WATER SUPPLY FACILITIES

Less than Significant Impact. The RSA for cumulative water supply impacts is the service areas of the MWD and LADWP service areas. Projected future development within these service areas would increase demand for water due to net increases in population, square footage, and intensity of uses. Future water demands for each service provider are identified in Section 3.18 of Chapter 3. Construction and operation of the Hollywood Bowl Design Option would not substantially increase water usage within the geographical context. MWD and LADWP, through their respective 2020 urban water management plans, have indicated they can accommodate the additional demand for the design option as well as future growth assumed in the plans. In addition, the implementation of conservation measures on a project-specific basis and water shortage contingency plans would reduce additional water demand. Projected future development would be required to adhere to state and local water regulations and policies. Therefore, the incremental effects of the Hollywood Bowl Design Option, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact related to water supply facilities would be less than significant.

3.19.18.2.2 WASTEWATER FACILITIES

Less than Significant Impact. The RSA for cumulative impacts related to wastewater facilities is the service areas of the City of Los Angeles District of Sanitation, the Los Angeles County Sanitary District, and the Hyperion Treatment Plant. Projected future development could expand existing infrastructure and/or increase the need for wastewater treatment facilities. This increase in wastewater treatment facilities would comply with federal, state, and local wastewater-related requirements. Construction and operation of the Hollywood Bowl Design Option would not substantially increase wastewater treatment demand at the Hyperion Treatment Plant or require expansion of infrastructure by the City of Los Angeles District of Sanitation or the Los Angeles County Sanitary District. Therefore, the incremental effects of the Hollywood Bowl Design Option, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact related to the need for additional or expanded wastewater facilities would be less than significant.

3.19.18.2.3 STORMWATER FACILITIES

Less than Significant Impact. The RSA for cumulative impacts related to stormwater is the service area of the Los Angeles County Flood Control District. Projected future development would comply with federal, state, and local stormwater-related regulations and policies. The existing channel and associated stormwater drains are adequate to accommodate additional stormwater flows from the Hollywood Bowl

Design Option, and infrastructure currently exists in the City of Los Angeles and Los Angeles County. If new stormwater drainage facilities are required, they would be required to adhere to federal, state, and local regulations. Therefore, the incremental effects of the Hollywood Bowl Design Option, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact related to the need for additional or expanded stormwater facilities would be less than significant.

3.19.18.2.4 ELECTRIC POWER

Less than Significant Impact. The RSA for cumulative impacts related to electric power is the LADWP service area. The amount of electric power consumed by the Hollywood Bowl Design Option combined with projected future development would be substantially less than the capacity in the service areas. Therefore, the incremental effects of the Hollywood Bowl Design Option, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact related to the need for electric power would be less than significant.

3.19.18.2.5 TELECOMMUNICATION

Less than Significant Impact. The RSA for cumulative impacts related to telecommunication is the service areas of the telecommunication providers within the City of Los Angeles. Telecommunication facilities are present within the geographic area surrounding the Hollywood Bowl Design Option and would be available for other projected future development. If new telecommunication facilities are required, they would be installed in compliance with relevant state and local regulations. Therefore, the incremental effects of the Hollywood Bowl Design Option, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact related to the supply of telecommunication services and the need for additional or expanded facilities would be less than significant.

3.19.18.2.6 NATURAL GAS

No Impact. There would be no demand for natural gas from the Hollywood Bowl Design Option. Therefore, the design option would not have an incremental effect in combination with projected growth, and there would be no cumulative impact related to the supply of natural gas and the need for additional or expanded facilities.

3.19.18.2.7 SOLID WASTE

Less than Significant Impact. The RSA for cumulative impacts related to solid waste is the area serviced by the City of Los Angeles. The City of Los Angeles contracts with landfills to process solid waste. Landfills that would serve the Hollywood Bowl Design Option are shown in Table 3.18-4 and Table 3.18-5 in Section 3.18 of Chapter 3. The design option would generate minimal solid waste during operation, and solid waste generated during construction would adhere to state and local regulations. Development of the design option combined with other projected future development could cumulatively increase demands on solid waste facilities. While the landfills identified in Table 3.18-4 and Table 3.18-5 in Section 3.18 may reach capacity in the future, there is no indication that would result in a significant cumulative impact to regional landfill capacity. The design option would not create demand for solid waste services that exceed the capabilities of the local waste management system. Therefore, the incremental effects of

the Hollywood Bowl Design Option, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact related to solid waste would be less than significant.

3.19.18.3 MAINTENANCE AND STORAGE FACILITY

3.19.18.3.1 WATER SUPPLY FACILITIES

Less than Significant Impact. The RSA for cumulative water supply impacts is the service areas of the MWD and LADWP service areas. Projected future development within these service areas would increase demand for water due to net increases in population, square footage, and intensity of uses. Future water demands for each service provider are identified in Section 3.18 of Chapter 3. Construction and operation of the MSF would not substantially increase water usage within the geographical context. MWD and LADWP, through their respective 2020 urban water management plans, have indicated they can accommodate the additional demand for the MSF as well as future growth assumed in the plans. In addition, the implementation of conservation measures on a project-specific basis and water shortage contingency plans would reduce additional water demand. Projected future development would be required to adhere to state and local water regulations and policies. Therefore, the incremental effects of the MSF, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact related to water supply facilities would be less than significant.

3.19.18.3.2 WASTEWATER FACILITIES

Less than Significant Impact. The RSA for cumulative impacts related to wastewater facilities is the service areas of the City of Los Angeles District of Sanitation and the Hyperion Treatment Plant. Projected future development could expand existing infrastructure and/or increase the need for wastewater treatment facilities. This increase in wastewater treatment facilities would comply with federal, state, and local wastewater-related requirements. Construction and operation of the MSF would not substantially increase wastewater treatment demand at the Hyperion Treatment Plant or require expansion of infrastructure by the City of Los Angeles District of Sanitation. Therefore, the incremental effects of the MSF, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact related to the need for additional or expanded wastewater facilities would be less than significant.

3.19.18.3.3 STORMWATER FACILITIES

Less than Significant Impact. The RSA for cumulative impacts related to stormwater is the service area of the Los Angeles County Flood Control District. Projected future development would comply with federal, state, and local stormwater-related regulations and policies. The existing channel and associated stormwater drains are adequate to accommodate additional stormwater flows from the MSF, and infrastructure currently exists in Los Angeles County. If new stormwater drainage facilities are required, they would be required to adhere to federal, state, and local regulations. Therefore, the incremental effects of the MSF, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact related to the need for additional or expanded stormwater facilities would be less than significant.

3.19.18.3.4 ELECTRIC POWER

Less than Significant Impact. The RSA for cumulative impacts related to electric power is the LADWP service area. The amount of electric power consumed by the MSF combined with projected future development would be substantially less than the capacity in the service areas. Therefore, the incremental effects of the MSF, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact related to the need for electric power would be less than significant.

3.19.18.3.5 TELECOMMUNICATION

Less than Significant Impact. The RSA for cumulative impacts related to telecommunication is the service areas of the telecommunication providers within the City of Los Angeles. Telecommunication facilities are present within the geographic area surrounding the MSF and would be available for other projected future development. Telecommunication facilities would be installed in compliance with relevant state and local regulations. Therefore, the incremental effects of the MSF, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact related to the supply of telecommunication services and the need for additional or expanded facilities would be less than significant.

3.19.18.3.6 NATURAL GAS

No Impact. There would be minimal demand for natural gas from the MSF. Therefore, the MSF would not have an incremental effect in combination with projected growth, and there would be no cumulative impact related to the supply of natural gas and the need for additional or expanded facilities.

3.19.18.3.7 SOLID WASTE

Less than Significant Impact. The RSA for cumulative impacts related to solid waste is the area serviced by Los Angeles County. Los Angeles County contracts with landfills to process solid waste. Landfills that would serve the MSF are shown in Table 3.18-4 and Table 3.18-5 in Section 3.18 of Chapter 3. The MSF would generate minimal solid waste during operation, and solid waste generated during construction would adhere to state and local regulations. Development of the MSF combined with other projected future development could cumulatively increase demands on solid waste facilities. While the landfills identified in Table 3.18-4 and Table 3.18-5 in Section 3.18 may reach capacity in the future, there is no indication that would result in a significant cumulative impact to regional landfill capacity. The MSF would not create demand for solid waste services that exceed the capabilities of the local waste management system. Therefore, the incremental effects of the MSF, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact related to solid waste would be less than significant.

3.19.19 SUMMARY OF CUMULATIVE IMPACTS

Table 3.19-3 lists the cumulative impacts for each environmental resource topic evaluated above. There would be significant and unavoidable cumulative impacts on historical resources and paleontological resources associated with construction of the alignments and stations, and there would be significant and unavoidable cumulative impacts on paleontological resources associated with construction of the Hollywood Bowl Design Option.

TABLE 3.19-3. SUMMARY OF CUMULATIVE IMPACTS

LEVEL OF IMPACT	ENVIRONMENTAL RESOURCE – ALIGNMENTS AND STATIONS	ENVIRONMENTAL RESOURCE – HOLLYWOOD BOWL DESIGN OPTION	ENVIRONMENTAL RESOURCE – MSF

No Impact/Less than Significant Impact	• Aesthetics
	• Air Quality
	• Biological Resources
	• Communities, Population, and Housing
	• Cultural and Paleontological Resources
	  ○ Archaeological Resources
	  ○ Disturbance of Human Remains
	• Energy
	• Geology and Soils
	• Greenhouse Gas Emissions
	• Growth Inducing Impacts
	• Hydrology and Water Quality
	• Land Use and Planning
	• Noise and Vibration
	• Public Services and Recreation
	• Transportation
	• Tribal Cultural Resources
	• Utilities and Service Systems[1]
		• Aesthetics
		• Air Quality
		• Biological Resources
		• Communities, Population, and Housing
		• Cultural and Paleontological Resources
		  ○ Historical Resources
		  ○ Archaeological Resources
		  ○ Disturbance of Human Remains
		• Energy
		• Geology and Soils
		• Greenhouse Gas Emissions
		• Growth Inducing Impacts
		• Hydrology and Water Quality
		• Land Use and Planning
		• Noise and Vibration
		• Public Services and Recreation
		• Transportation
		• Tribal Cultural Resources
		• Utilities and Service Systems[1]
			• Aesthetics
			• Air Quality
			• Biological Resources
			• Communities, Population, and Housing
			• Cultural and Paleontological Resources
			  ○ Historical Resources
			  ○ Archaeological Resources
			  ○ Disturbance of Human Remains
			  ○ Paleontological Resources
			• Energy
			• Geology and Soils
			• Greenhouse Gas Emissions
			• Growth Inducing Impacts
			• Hydrology and Water Quality
			• Land Use and Planning
			• Noise and Vibration
			• Public Services and Recreation
			• Transportation
			• Tribal Cultural Resources
			• Utilities and Service Systems[1]

Significant and Unavoidable Impact	• Cultural and Paleontological Resources
	  ○ Historical Resources
	  ○ Paleontological Resources
		• Cultural and Paleontological Resources
		  ○ Paleontological Resources
			N/A

Source: Connect Los Angeles Partners 2024
[1] The Utilities and Service Systems cumulative impact analysis in Section 3.19.18 shows impacts by individual utilities. However, this table provides the overall cumulative impact.
MSF = maintenance and storage facility