

SECTION 4 Cumulative Impact Analysis

The evaluation of cumulative impacts considers the potential impact of the Program in combination with past, present, and probable future projects that overlap in terms of the nature of the impact, the time frame, and the geographic area (e.g., a watershed or air basin). This section describes the methodology, projects considered in the cumulative impact assessment, and potential cumulative impacts that would occur if these projects were implemented along with the Program. The focus of this analysis is to identify the potential impacts of the Program that might not be significant when considered alone, but that could contribute to a significant impact when viewed in conjunction with other projects.

The upstream and downstream measures have limited overlap in their environmental impacts. Upstream impacts would be citywide or larger in geographic extent, specific to types of plastic materials and products addressed in the Program, and the cumulative impact is related to other similar regulatory programs at the state or regional geographic areas. Accordingly, the cumulative impact analysis first addresses upstream Program elements and considers the cumulative regulatory context across the state.

Downstream impacts would be local to the area that would have a new or expanded facility, and cumulative impacts would be restricted to similar construction and/or operational activity within the geographic area connected to that location.

4.1 Cumulative Impact Methodology

The CEQA Guidelines Section 15355 defines cumulative impacts as follows:

“Cumulative impacts refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

(a) The individual effects may be changes resulting from a single project or a number of separate projects. (b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.”

In addition, CEQA Guidelines Section 15130(a)(1) states:

“As defined in Section 15355, a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the Environmental Impact Report (EIR) together with other projects causing related impacts. An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR.”

Furthermore, CEQA Guidelines Section 15064(h)(4) states:

“The mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project’s incremental effects are cumulatively considerable.”

CEQA Guidelines Section 15130 provides two alternative approaches for analyzing and preparing an adequate discussion of significant cumulative impacts:

- the list approach, which involves listing past, existing, and probable future projects or activities producing related or cumulative impacts, including, if necessary, those projects outside the control of the lead agency; or
- the projection approach, which uses a summary of projections contained in an adopted local, regional, or statewide plan, or related planning document, that describes or evaluates conditions and their contribution to the cumulative effect.

4.2 Upstream Cumulative Impact Analysis

This PEIR uses the list approach for analysis of potential upstream cumulative impacts. Factors to consider when determining whether to assess a related project include the nature of each environmental resource being examined, location of the project, and type of project. For upstream cumulative impacts, legislative and regulatory programs similar in scope and geography to the Program contribute to the list of projects and activities considered for cumulative impact assessment.

4.2.1 Geographic Scope of Upstream Analysis

The upstream components of the Program, if enacted, would include policies that would be in force throughout the entire City of Los Angeles. Table 4.2-1 defines the geographic scope of the cumulative impact analysis for the resource topics that are evaluated in this chapter. For cumulative impacts related to plastics waste reduction, this section also considers reduction efforts for non-Program activities, taken together with Program plastic reduction and end-of-life impact mitigations.

Table 4.2-1. Geographic Scope for Resources with Potential Cumulative Impacts Relevant to the Proposed Program

Resource Area	Geographic Scope
Aesthetics	Citywide
Air Quality	Global, Regionwide, and air quality management/air pollution control districts for criteria pollutant emissions
Biological Resources	Citywide
Energy	Citywide
GHG Emissions	Global
Hazards and Hazardous Materials	Citywide
Hydrology and Water Quality	Citywide, under jurisdiction of Los Angeles RWQCB
Noise	Citywide
Transportation	Global for VMT and associated GHGs, Regionwide

Resource Area	Geographic Scope
Utilities and Service Systems	Citywide

4.2.2 Cumulative Upstream Projects

The cumulative environmental projects describe other upstream regulatory activities—past, existing, and probable future programs and projects—occurring in the same geographic area, same timeframe, and generating similar potential impacts on resources as the Program. The State of California, Los Angeles County, and other municipalities are also contemplating or have recently enacted plastics-related ordinances and regulations that could be considered in a cumulative context. See Appendix A for a summary of state and city regulations that are analogous to the Program. In particular, the City has enacted the following ordinances since 2013 which are considered in this cumulative impact analysis:

- Expanded Single-Use Carryout Bag Ban: Ordinance 187716 (2022)
- Expanded Polystyrene Ban: Ordinance 187717 (2022)
- Zero Waste City Facilities and Events on City Property: Ordinance 187718 (2022)
- Disposable Foodware Accessories on Request: Ordinance 187030 (2021)
- Plastic Straws on Request: Ordinance 186028 (2019)
- Single-Use Carryout Bag Ban: Ordinance 182604 (2013).

For the potential for future legislative and regulatory action, the types of past, existing, and probable future increase in the use and disposal of single-use plastics provides an indication of the likelihood of growth in these actions, including non-Program elements. Single-use plastic demand is expected to generally track with population growth and has quadrupled since 1980 due to emerging markets and advancements in manufacturing. With an abundance of plastic use and the subsequent rise of plastic in the environment, special concern has been placed on the concentration of microplastics in aquatic systems. California’s beaches and larger hydrological systems uphold the state’s aesthetic and recreational value to residents and visitors, making the cumulative impact of plastic waste one that harms the natural and economic prosperity of not just Los Angeles, but also the state. The presence of microplastics in freshwater environments has been correlated with urban land use and population density with temporal drivers including stormwater runoff (Talbot and Chang 2022). California is the most populous state in the nation, and its population is also highly urbanized – 94% of the population lives in urban areas, while only 5% of California’s lands are urban – therefore, the population is both highly concentrated and unevenly distributed. About 50% of the population resides in four counties: Los Angeles, Orange, San Diego, and San Bernardino (California Department of Finance 2023). Therefore, the statewide environmental effects, both for the Program and cumulatively, are experienced primarily in southern California.

There have been many legislative and regulatory efforts carried out in jurisdictions in the vicinity of the City to reduce the numerous types of plastic pollution. For example, there are over 100 cities or counties that have a ban on EPS in the state, ranging from bans that apply only to government facilities, to bans on use in restaurants and foodware vendors, to full bans on the distribution or use of any EPS products. This range in applicability of EPS bans can challenge businesses and consumers who operate at the

boundary between these cities or counties. Similarly, many nearby jurisdictions (e.g., Laguna Beach, Encinitas, Malibu, Glendale, Hermosa Beach, and Solana Beach) have passed ordinances to restrict or ban the use of lighter-than-air balloons, and the state recently passed AB 847, which will phase out electrically conductive balloons, resulting in a full ban by 2032.

At the local level adjacent to the City, the Los Angeles County Board of Supervisors adopted Ordinance 2022-0016 on April 19, 2022, which requires that single-use articles that food facilities provide to customers with ready-to-eat food, such as food containers, cups, dishes and accessories, be either compostable or recyclable by May 1, 2024. The ordinance also prohibits, effective May 1, 2023, the retail sale of various EPS products, such as coolers, packaging materials, single-use articles such as cups, plates, and pool toys, unless the products are encased in a durable material. Additionally, it requires full-service restaurants to use reusable foodware for dine-in customers.

At the state level, the implementation of SB 54³⁵ (Plastic Pollution Prevention and Packaging Producer Responsibility Act) (see Appendix A, Section 1.1.1.5 for a full description of the act and implementing regulations) has the potential to change the landscape of plastics manufacturing, disposal, and recycling in California as various parts of the act are phased in over the next decade. SB 343 (Truth in Labeling for Recyclable Materials) works in tandem with SB 54. SB 54's goal is that 100% of single-use packaging will eventually be recyclable or compostable by 2032. SB 54 and SB 343 are already supporting each other in this regard, by evaluating the existing recyclability of material categories, and requiring products to be advertised as such. SB 54 is a fundamentally downstream program; it does not include any bans aimed at keeping certain single-use plastic products from entering the use and disposal streams. Rather, SB 54 seeks to manage single-use plastic in such a way that, ultimately, 100% of it will be recyclable or compostable. SB 54 defines which products are or could be recyclable, and then provides requirements to ensure recyclability and decrease plastic waste through EPR for specific plastic resin types, not products.

SB 54's use of EPR is to require all producers of materials included in the "covered materials categories" to buy in as a member of the Producer Responsibility Organization (PRO) in the state or participate as independent producers. The bill would require the PRO, commencing in the 2027 calendar year, and until January 1, 2037, to remit a \$500,000,000 surcharge each year to the California Department of Tax and Fee Administration to be deposited into the California Plastic Pollution Mitigation Fund (created by SB 54), and would outline requirements applicable to the collection and administration of the surcharge. In addition, the PRO would collect up to \$150,000,000 from plastic resin manufacturers who sell plastic covered material to producers who are participants of the PRO.

The California Plastic Pollution Mitigation Fund would be spent by state agencies for purposes relating to mitigating the environmental impacts of plastic. SB 54 also requires the PRO to pay a charge named the "California circular economy administrative fee" to CalRecycle and would require the department to set the charge at an amount adequate to cover its and any other state agencies' costs of implementing and enforcing the comprehensive statutory scheme.

³⁵ CalRecycle, Division of Circular Economy. Plastic Pollution Prevention and Packaging Producer Responsibility Act Regulations, proposed draft regulatory text, CCR Title 14 Division 7, Chapter 11.1, December 2023. 115pp.

SB 54 would also impose a new state-mandated local program that would require that local jurisdictions such as the City and recycling service providers include in their collection and recycling programs covered material contained on the lists published by CalRecycle.

The City's Comprehensive Plastics Reduction Program takes a different but complementary approach to extend the measures in SB 54 to include specific items and programs that LASAN addresses. While SB 54 addresses plastic material type and form through recycling, the City's Program takes a product-specific approach. For example, SB 54 considers many plastic items smaller than 2 inches in diameter to be recyclable; these items are allowed for use and would be recycled by resin type. However, in the City, items this small are not separable and therefore do not enter the recycling stream. For these items that cannot be recycled in the City, the product use is banned; the items would not enter the use stream in the first place. Another difference is that SB 54 includes specific exemptions. For example, SB 54 exempts single-use plastic water bottles and all bottles subject to the existing CalRecycle Beverage Container Recycling Program and the CRV from the requirements. The City's Program would seek to eliminate single-use plastic bottles from the system. Therefore, the City's Program would complement the requirements of SB 54 by either banning certain single-use plastic items, or have focused EPR programs for specific products (such as small single-use beverage pods) that are not captured by the City's material recovery facilities.

In addition to SB 54, state agencies and the legislature are active in proposing new regulations and legislation that seeks to reduce plastic waste, reduce the harm caused by certain plastic products, establish EPR programs, and create a more circular economy for goods in the state. For example, effective October 1, 2023, DTSC has identified 6PPD (N'-phenyl-p-phenylenediamine), a chemical present in motor vehicle tires that readily reacts to form another chemical known to endanger California waters and kill threatened and endangered salmon, as a new priority product. The new regulation requires manufacturers of motor vehicle tires that contain 6PPD for sale in California to identify their products as containing 6PPD by November 30, 2023, and proof that they are phasing out the chemical by March 29, 2024. As another example, AB 888 prohibits the sale in California of personal care products, such as soap, shampoo and toothpaste, that contain plastic microbeads. The ban took effect on January 1, 2020, and targets products designed to "rinse off." Microbeads are a source of microplastic pollution that is particularly difficult to address, as the tiny pieces of plastic easily slip through wastewater treatment plants and make their way into the ocean, where they can harm marine life.

While it is not possible to identify possible future plastics and single-use product regulations, it is clear that regulatory actions that approach plastic waste from a source reduction and EPR standpoint locally and in the state are growing over time. Shifts in consumer behavior are also anticipated to occur over time as regulatory measures supporting circular economy principles are enacted and additional education and outreach efforts are implemented.

4.2.3 Resource Areas Without Potential for Upstream Cumulative Impacts

Table 4.2-2 summarizes the environmental resource categories that do not have the potential for significant cumulative impacts and the rationale for this determination.

Table 4.2-2. Resource Topics Dismissed from Further Consideration in the Upstream Cumulative Impacts Analysis

Resource Topic Not Discussed Further	Rationale
Agricultural and Forestry Resources	As discussed in Section 3.2, the upstream measures of the proposed Program would not affect land use and planning; therefore, no cumulative impacts would occur.
Cultural Resources	As discussed in Section 3.6, the upstream measures of the proposed Program would not affect cultural resources; therefore, no cumulative impacts would occur.
Geology and Soils	As discussed in Section 3.8, the upstream measures of the proposed Program would not affect geology and soils; therefore, no cumulative impacts would occur.
Land Use and Planning	As discussed in Section 3.12, the upstream measures of the proposed Program would not affect land use and planning; therefore, no cumulative impacts would occur.
Mineral Resources	As discussed in Section 3.13, the upstream measures of the proposed Program would not affect mineral resources; therefore, no cumulative impacts would occur.
Population and Housing	As discussed in Section 3.15, the upstream measures of the proposed Program would not affect population and housing; therefore, no cumulative impacts would occur.
Public Services	As discussed in Section 3.16, the upstream measures of the proposed Program would not affect public services; therefore, no cumulative impacts would occur.
Recreation	As discussed in Section 3.17, the upstream measures of the proposed Program would not affect recreation; therefore, no cumulative impacts would occur.
Tribal Cultural Resources	As discussed in Section 3.19, the upstream measures of the proposed Program would not affect tribal cultural resources; therefore, no cumulative impacts would occur.
Wildfire	As discussed in Section 3.21, the upstream measures of the proposed Program would not affect wildfire risks; therefore, no cumulative impacts would occur.

4.2.4 Resource Areas with the Potential for Upstream Cumulative Impacts

This section considers the potential cumulative impact of upstream Program activities, taken together with the non-Program regulatory actions by the state, City of Los Angeles, and Los Angeles County and the expected trends in the regulatory environment summarized in the previous section. The analysis is organized by resource category. Section 6 (Other CEQA Concerns) evaluates the proposed Program to determine whether it would result in significant unavoidable impacts to any resources that may contribute to potential cumulative impacts.

With respect to consideration of cumulative impacts that are significant even without any contribution from the Program, the CEQA Guidelines Section 15064(h)(4) states:

“The mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project’s incremental effects are cumulatively considerable.”

In this analysis, only those Program impacts with the potential for cumulative impacts are addressed. None of the upstream Program elements require mitigation. All impacts are either beneficial, no impact, or less than significant impact. No new mitigation measures are identified for cumulative upstream impacts.

4.2.5 Beneficial Cumulative Impacts: Aesthetics and Biological Resources

The Program's upstream measures would have largely beneficial impacts on aesthetic and biological resource areas due to the reduction of trash, litter, and plastics released into the environment. Program elements that would not have a substantive impact on aesthetics or biological resources are determined to have less than significant impacts (see Table 3.2-2 and Table 3.5-2). Cumulatively, the plastics reduction measures in the Program and at the State level and regional level are similar in nature, although with a greater EPR component at the state level. SB 54 and the Program would work together in a complimentary manner. Cumulatively, there would be aggregate beneficial impacts to these resource categories due to reduction in trash, pollution, and exposure to littered items in the environment.

4.2.6 Air Quality

The cumulative air quality impacts of the regulatory programs include global, regional, and/or local effects. The manufacturing process of alternative products such as paper, glass, aluminum, or other plastic products can vary as would the associated air emissions. These would be dependent on the manufacturing process, input materials, and origin of the raw materials anywhere in the world. By eliminating the use of certain products, the Program would result in less manufacturing of the banned products but would increase the manufacture of substitute products. Life cycle emissions include indirect emissions associated with materials manufacture. These indirect emissions involve numerous parties, each of which is responsible for emissions of their particular activity. Because the origin of the raw materials purchased is unknown and specific suppliers are variable, the manufacturing information for those raw materials is also not known. For this reason, the California Natural Resources Agency (2009) found that life cycle analyses were not warranted for project-specific CEQA analysis in most situations. None of the Program elements require changes to manufacturing processes, and several types of alternate materials are available, so no specific material is required. Thus, for the purposes of analyzing cumulative air quality impacts, manufacturing emissions of criteria and toxic air pollutants are not specifically included in this analysis because information is not known and would be speculative, and the proposed Program does not propose any change to any manufacturing processes.

Accordingly, the evaluation of air quality impacts associated with implementation of upstream measures focuses on the product replacement behavior and the local change in consumption, disposal, and associated vehicle trips. The Program-level analysis in Section 3.4, Air Quality, provides an analysis of potential impacts that could result from implementation of the upstream policies and programs associated with the Program relative to air quality.

Several policies and programs may lead to product replacement behavior (e.g., alternative materials used for beverage containers, to-go foodware, plastic bag clips, and PFAS). These types of policies may result in changes to truck trips associated with distribution of these materials (e.g., heavier glass-bottled beverages delivered in place of plastic-bottled beverages). Policies that require reusable products may result in additional trips associated with return logistics. At this time, the number of additional vehicle trips and their ultimate destination is unknown but could range from negligible, if return logistics are at locations the consumer would travel to in any case (e.g., return reusable bottles back to point of sale on their next grocery shopping trip), to a relatively minor increase (e.g., extra trips associated with dedicated return logistics).

The additional air quality effect due to state and other regulations would be complementary and additive to those of the Program, consisting of additional EPR regulatory approaches recycling mandates at the State level, and product bans from other local jurisdictions including Los Angeles County.

As discussed in detail in Section 3.4, Air Quality, which is itself cumulative in approach, the nature of these cumulative policies is such that they would not conflict with or obstruct implementation of the applicable air quality plan. The potential cumulative increase in daily VMT associated with extra trips associated with return logistics for reusable and take-back programs and/or additional trips required for transport of product replacements (e.g., water packaged in heavier glass bottles versus plastic bottles) is not expected to generate emissions above the SCAQMD mass daily thresholds. In addition, a 2020 SIP submittal from CARB to USEPA demonstrates that emissions increases from VMT growth is adequately offset by technology improvements and transportation strategies (CARB 2020). Therefore, any associated increase in VMT would not conflict with or obstruct implementation of the applicable 2022 SCAQMD AQMP. Thus, this policy would not conflict with or obstruct implementation of the applicable air quality plan, and cumulative impacts would be less than significant.

4.2.7 Energy

Energy impacts associated with the implementation of the upstream Program policies and programs together with the cumulative list of state and local programs are primarily related to the transition to alternative materials along with the change in truck trips associated with the collection and transport of recyclables, organic materials, and solid waste to the respective processing facilities and return logistics for reuse programs. As described in Section 3.7, Energy, many of the upstream measures would not result in a change in energy consumption while others may result in a shift in materials disposed as waste to recyclable or compostable materials. Additional truck trips are not expected under these scenarios since trucks are assumed to already be coming to pick up the three bins and the change would be the quantity of material in each bin.

Several policies and programs would not directly result in changes to truck trips associated with green bin, blue bin, and black bin services, but may lead to product replacement behavior (e.g., alternative materials used for beverages, to-go foodware, plastic bag clips, and PFAS). These types of policies may result in changes to truck trips associated with distribution of these materials (e.g., heavier glass-bottled beverages delivered in place of plastic-bottled beverages). Policies that require reusable products may result in additional trips associated with return logistics. At this time, the number of additional vehicle trips and their ultimate destination is unknown, thus a policy-specific calculation of direct energy consumption cannot be conducted. However, as discussed in below, the nature of these cumulative policies is such that they would not result in the wasteful, inefficient, or unnecessary consumption of energy resources that would conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

The policies in the proposed Program in addition to many state and local policies that encourage recycling, reuse, and reduction directly decrease the demand for virgin products, thus avoiding the energy associated with extraction of raw materials and transport from processing and manufacturing facilities that are likely outside of California (e.g., virgin plastic products from China). Accordingly, an increase in recycling volumes of alternative materials would not result in wasteful, inefficient, or unnecessary consumption of energy resources as compared with use of virgin materials and would be

consistent with the energy policies set forth in L.A.'s Green New Deal as discussed in Section 1.3.1 (Purpose and Need). Further, the proposed ban would not conflict with the energy or GHG reduction strategies outlined in CARB's *AB-32 Scoping Plan: Achieving Carbon Neutrality by 2045* (CARB 2022). Accordingly, the cumulative impact of the Program's upstream measures and other programs would be less than significant. LCAs relevant to cumulative impacts to energy are discussed in greater detail in Section 3.7, Energy.

4.2.8 Greenhouse Gas Emissions

As with air quality and energy, the cumulative impacts analyses of bans on certain types of plastics focus on the alternative materials that replace the banned material, and as with those cumulative analyses, GHG impacts associated with the implementation of the upstream Program policies and programs are primarily related to the transition to alternative materials and associated transport requirements and end-of-life management. As discussed in more detail in Section 3.9, Greenhouse Gas Emissions, many of the cumulative policies and programs would not result in a change in GHG emissions while others may result in a shift in materials disposed as solid waste to recyclable or compostable materials. Additional truck trips are not expected under these scenarios since trucks are assumed to already be coming to pick up the three bins and the change would be the quantity of material in each bin. Several policies and programs would not directly result in changes to truck trips associated with green bin, blue bin, and black bin services, but may lead to product replacement behavior (e.g., alternative materials used for beverage containers, to-go foodware, plastic bag clips, and PFAS). These types of policies may result in changes to truck trips associated with distribution of these materials (e.g., heavier glass-bottled beverages delivered in place of plastic-bottled beverages). Policies that require reusable products may result in additional trips associated with return logistics. At this time, the number of additional vehicle trips and their ultimate destination is unknown, thus a policy-specific calculation of cumulative GHG emissions cannot be conducted. However, an increase in use of refillable containers would offset the overall increase in GHG emissions associated with return logistics and/or use of alternative single-use containers. Further, the policies in the proposed Program in addition to many state and local policies that encourage recycling, reuse, and reduction directly decrease the demand for virgin products, thus avoiding the life cycle GHGs associated with extraction of raw materials and transport from processing and manufacturing facilities that are likely outside of California (e.g., virgin plastic products from China). As such, the nature of these policies is such that they would not generate GHGs, either directly or indirectly, that may have a significant impact on the environment or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Accordingly, the cumulative impact of the Program's upstream measures and other programs would be less than significant.

4.2.9 Hazards and Hazardous Materials

The only potential impact of the Program's upstream measures on hazards and hazardous materials would be a less than significant impact on creating a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. This impact is largely due to the wide range of alternative materials that could be used in place of single-use plastics (or in place of PFAS in the case of a PFAS ban), as the upstream measures do not mandate a specific alternative material to be used. Other state and regional plastics and PFAS regulations similarly target specific materials for

bans but do not require the use of a specific alternative material. Therefore, an increased shift away from PFAS and single-use plastics and toward recyclable or compostable single-use products or reusable alternatives due to City, regional, and statewide requirements, would have a less than significant cumulative impact.

4.2.10 Hydrology and Water Quality

The only less than significant impact that the Program's upstream measures would have on water resources would be a potential small increase in groundwater use to wash reusable alternatives to single-use plastics (e.g., reusable personal water bottles, refillable product bottles and jugs, and reusable foodware). Other local and state Programs that require a behavioral shift from the use of single-use products to reusable products would also require washing of these products by businesses and consumers. As discussed in Section 3.11, Hydrology and Water Quality, the City derives only approximately 9% of its water supply from groundwater. Further, it is anticipated that reusable alternatives would be washed by consumers in existing dish loads and therefore, the cumulative impact of the Program's upstream measures and other programs would be less than significant.

4.2.11 Noise

Noise impacts associated with the implementation of the cumulative policies and programs are related to the change in truck trips and increase in traffic noise associated with the collection and transport of reusables, recyclables, organic materials, and solid waste to the respective processing facilities. Many of the policies and programs associated with the Program would not result in any additional truck trips (i.e., refillable plastic bottles, leashed lids, single-use plastic beverage holder rings, dine-in services, bioplastic ban, reusable foodware pilot projects, plastic tea bags, coffee/beverage pods, textile disposal policies, machine microfiber filtration, PFAS ban, plastic bag clips, silly string, sandbags, lighter-than-air balloons, and single-use e-cigarettes and vape cartridges), therefore, additional truck-related noise would not occur.

Noise associated with solid waste collection is governed by LAMC Chapter 11, Section 113.01 (Rubbish and Garbage Collection) which addresses operational hours of solid waste collection activities. Any cumulative changes to this traffic would be less than significant through compliance with this code. Noise associated with product replacement behavior (e.g., alternative materials used for beverages, to-go foodware, plastic bag clips, and PFAS) may result in changes to truck trips associated with distribution of these materials (e.g., glass-bottled beverages delivered in place of plastic-bottled beverages). It typically takes a doubling of traffic to result in an audible noise increase. In general, for the types of products identified in the cumulative projects, truck capacity would be weight limited rather than volume limited. As such, replacement behavior is not expected to result in a doubling of trips from existing distribution patterns of products identified in the cumulative projects, including SB 54 and other state laws, and other local regulations that are complementary and additive to the proposed Program. Accordingly, there would be a less than significant cumulative effect on noise.

4.2.12 Transportation

Traffic and transportation impacts associated with the implementation of the cumulative policies and programs are primarily related to the change in truck trips associated with the collection and transport

of recyclables, organic materials, and municipal solid waste to the respective processing facilities and return logistics for reuse programs. As discussed in more detail in Section 3.18 (Transportation), many of the cumulative policies and programs would not result in any additional truck trips while others may result in a shift in materials disposed as municipal solid waste to recyclable or compostable materials. Additional truck trips are not expected under these scenarios since trucks are assumed to already be coming to pick up the three bins and the change would be the quantity of material in each bin.

Several policies and programs would not directly result in changes to truck trips associated with green bin, blue bin, and black bin services, but may lead to product replacement behavior (e.g., alternative materials used for beverages, to-go foodware, plastic bag clips, and PFAS). These types of policies may result in changes to truck trips associated with distribution of these materials (e.g., glass-bottled beverages delivered in place of plastic-bottled beverages). Policies that require reusable products may result in additional trips associated with return logistics. At this time, the number of additional vehicle trips and their ultimate destination is unknown, thus a policy-specific traffic analysis cannot be conducted. However, the nature of these policies is such that they would not conflict with another program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. In addition, any change in the number of trips would be distributed throughout the City and would not be expected to lead to cumulative impacts at intersections or increase in traffic delay. Further, the policies in the proposed Program in addition to many state and local policies that encourage recycling, reuse, and reduction directly decrease the demand for virgin products, thus avoiding the relatively greater VMT associated with extraction of raw materials and transport from processing and manufacturing facilities that are likely outside of California (e.g., virgin plastic products from China). Accordingly, there would be a less than significant cumulative effect on transportation.

4.2.13 Utilities and Service Systems

Impacts of the upstream measures to utilities and service systems would be due to increased washing of reusable alternatives to single-use plastics, as described in Section 3.20, and these impacts would be less than significant. As discussed above in Section 5.3.8, increased water use is not anticipated to substantially increase water demand in the City nor impact water availability. Other state and regional plastics regulations that prohibit the use of single-use plastics and incentivize the use of reusable alternatives or promote recycling would similarly incrementally increase the need for water for washing. However, because the majority of new reusables are expected to be washed along with existing dish loads, it is anticipated that the cumulative impact of the Program's upstream measures and other programs on utilities would be less than significant.

4.3 Downstream Cumulative Impacts

Downstream cumulative impacts are analyzed through a summary of projections adopted in a local, regional, or statewide plan (CEQA Guidelines Section 151309(b)). The downstream cumulative impacts relate to the potential for future facilities to impact the physical environment within the geographic area for each resource (watershed, airshed, viewshed, etc.). The potential for the Program to contribute to a cumulative impact is dependent upon where future downstream facilities are located and also when they would be constructed. For this PEIR, cumulative impacts are discussed for the bounding-level case of the facility sizes specified in the analyses conducted in Section 3 (Environmental Analysis) and the

mitigation measures required. Using this approach, the cumulative analysis relies on the following regional projections:

- Long-range demographic forecasts based on adopted regional plans.
- A determination of whether the long-term impacts of all related past, present, and future plans and projects would cause a cumulatively significant impact.
- A determination as to whether implementation of the proposed Program would have a “cumulatively considerable” contribution to any significant cumulative impact. (See CEQA Guidelines Sections 15130[a] and 15130[b], 15355[b], 15064[h], and 15065[c].)

The cumulative impacts analysis considers the short-term and long-term effects of the Program; these impacts may not be apparent in the near term but may evolve into beneficial or adverse impacts in the long-term. The discussion of cumulative impacts is guided by standards of practicality and reasonableness. Beneficial impacts are also considered in this analysis of cumulative impacts.

4.3.1 Summary of Projections

The analysis of downstream cumulative impacts proceeds using a “summary of projections contained in an adopted local, regional, or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative impact. Such plans may include a general plan, a regional transportation plan, or plans for the reduction of GHG emissions. A summary of projections may also be contained in an adopted or certified environmental document for such a plan” (State CEQA Guidelines Section 15130(b)).

The geographic boundary considered in the cumulative impact analysis considers the City and reflects consideration of whether the downstream elements of the Program would cause a new significant cumulative impact or result in a cumulatively considerable contribution to a previously identified significant cumulative impact included in an adopted local, regional, or statewide plan. The geographic area for air quality is larger and includes the region, and for GHG emissions are global in effect.

The cumulative impacts analysis for each resource area using the projection method considers impacts related to the general growth projected for the area as well as the policies and programs that are in place to protect, conserve, and improve environmental resources. The regional plans and programs for land use and mobility were consulted for planned future conditions. General plans prepared by the City and County, as well as SCAG’s RTP/SCS, provide information on trends as well as forecasts relevant to the cumulative impacts analysis for specific disciplines.

The discussion below describes the plans, programs, and projections as well as the context in which the Program may contribute to potential cumulative impacts.

4.3.1.1 City of Los Angeles General Plan

The City of Los Angeles General Plan is a comprehensive long-range declaration of purposes, policies, and programs for development of the City. The General Plan includes a Framework Element as well as several other elements that help to guide land use and planning decisions in the City. For the purposes of the cumulative impacts analysis for the Program, the Framework Element and Mobility Plan 2035 are addressed herein.

4.3.1.1.1 Framework Element

The General Plan Framework Element (City of Los Angeles 2001) is a strategy for long-term growth that sets a citywide context for guiding updates to the community plan and citywide elements. The Framework Element does not mandate or encourage growth. Because population forecasts are estimates, it is possible that the estimated population growth may be less or more. Should the City continue to grow, the Framework Element provides a means for accommodating new population and employment growth in a manner that enhances rather than degrades the environment. Specifically, the Framework Element plans for a liveable City for existing and future residents and one that is attractive to future investment. In addition, the plan recognizes conservation of the community character of neighborhoods and commercial districts not designated as growth areas. In addition, Section 3.12, Land Use and Planning, of this document summarizes key elements of the 35 Community Plans in the City.

4.3.1.1.2 Mobility Plan 2035

Mobility Plan 2035, an element of the City of Los Angeles General Plan (City of Los Angeles 2016), provides the policy foundation for achieving a transportation system that balances the needs of all road users. The proposed Program could affect levels of transportation, and therefore this plan is relevant for future projections. The purpose of the plan is to guide future development of a citywide transportation system that provides for the efficient movement of people and goods. In 2008, the California State Legislature adopted AB 1358, the Complete Streets Act, which requires local jurisdictions to “plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways, defined to include motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation, in a manner that is suitable to the rural, suburban or urban context.” Mobility Plan 2035 incorporates “complete streets” principles and lays the policy foundation for how future residents interact with their streets. Mobility Plan 2035 includes goals that define the City’s high-level mobility priorities, objectives to achieve the goals, and policies to support the goals.

4.3.1.2 Los Angeles County General Plan

The Los Angeles County General Plan (County of Los Angeles 2015a) provides a policy framework and establishes a long-range vision for how and where the unincorporated areas will grow. It establishes goals, policies, and programs to foster healthy, livable, and sustainable communities. The County General Plan uses a regional strategy to guide growth in a way that plans for more efficient and sustainable land use patterns and to address climate change, mobility, and community development. The General Plan encourages development in areas with infrastructure and access to transit and discourages growth in undeveloped areas and environmentally sensitive and hazardous areas. The General Plan’s growth forecast is from the SCAG 2012 RTP, which accounts for 11.35 million people in Los Angeles County (1.39 million in unincorporated areas) and 3.85 million households in Los Angeles County (405,500 in unincorporated areas) by 2035.

4.3.1.2.1 Mobility Element

The Mobility Element of the County General Plan (County of Los Angeles 2015b) provides an overview of transportation infrastructure and strategies for developing an efficient and multimodal transportation

network. The Mobility Element addresses the requirements of AB 1358, which requires the County General Plan to demonstrate how the County will provide for the routine accommodation of all users of a road or street, including pedestrians, bicyclists, users of public transit, motorists, children, seniors, and those in the disability community. The element assesses the challenges and constraints of the Los Angeles County transportation system and offers policy guidance to reach the County’s long-term mobility goals.

4.3.1.3 SCAG Regional Comprehensive Plan

SCAG is the federally designated metropolitan planning organization for the six-county Southern California region (i.e., Los Angeles, Orange, Riverside, San Bernardino, Ventura, Imperial). SCAG develops regional growth management plans, with the goal of providing for the efficient movement of people, goods, and information; enhancing economic growth and international trade; and improving the quality of life for the Southern California region.

The 2008 SCAG Regional Comprehensive Plan (RCP) is an action plan for implementing short-term strategies and long-term initiatives, along with guiding principles for a sustainable and livable region (SCAG 2008). Sustainably planning for land use and housing in Southern California maximizes the efficiency of existing and planned transportation networks, provides the necessary amount and mix of housing for the growing population, enables a diverse and growing economy, and protects important natural resources. The RCP focuses on specific planning and resource management areas, including land use and housing, open space and habitat, water, energy, air quality, solid waste, transportation, security and emergency preparedness, and the economy. The RCP’s Growth Management chapter addresses issues related to growth and land use and enumerates guiding principles for development that supports the overall RCP goals.

4.3.1.3.1 SCAG Regional Transportation Plan and Sustainable Communities Strategy

The 2020–2045 RTP/SCS, the most current long-range visioning plan, balances future mobility and housing needs with economic, environmental, and public health goals. The plan provides forecasts through 2045. Per the 2020–2045 RTP/SCS, Los Angeles County is expected to grow through 2045. Table 4.5-1 provides growth forecasts for population and employment.

Table 4.5-1. Growth Forecast for the County of Los Angeles

County Name	2020 Population	2045 Population	2020 Employment	2045 Employment
Los Angeles County	10,407,000	11,674,000	4,838,000	5,382,000

Source: SCAG 2020

4.3.1.4 Metro Long-Range Transportation Plan (2020)

Metro’s 2009 Long-Range Transportation Plan provides a 30-year vision for Los Angeles County’s transportation system to 2050. The plan identifies public transportation and highway projects, funding forecasts over a 30-year timeframe, multimodal funding availability, sub-regional needs, and performance measures (City of Los Angeles 2020).

The 2020 Long-Range Transportation Plan promotes telecommuting and/or other flexible transportation solutions to help sustain the congestion reduction and air quality benefits. Metro has constructed roughly 130 miles of fixed-guideway transit in the past 40 years. The 2020 Long Range Transportation Plan will add more than 100 miles over the next 30 years as well as invest in arterial and freeway projects to reduce congestion, such as the I-5 North Capacity Enhancements project, and bicycle and pedestrian projects to provide alternative transportation modes, such as the LA River Path and Active Transportation Rail to Rail Corridor.

4.3.1.5 2022 Air Quality Management Plan

The 2022 AQMP (SCAQMD 2022) is a regional blueprint for achieving federal air quality standards and healthful air. The SCAQMD is responsible for clean air in the SCAB. Although air quality has improved dramatically over the years, the SCAB still exceeds federal public health standards for both ozone and particulate matter and experiences some of the worst air pollution in the nation. The 2022 AQMP represents a thorough analysis of existing and potential regulatory control options; includes available, proven, and cost-effective strategies; and seeks to achieve multiple goals in partnership with other entities that promote reductions in GHGs and toxic risk. It also seeks efficiencies in energy use, transportation, and goods movement. The plan recognizes the critical importance of working with other agencies to develop funding and incentives that encourage an accelerated transition to cleaner vehicles and the modernization of buildings and industrial facilities with cleaner technologies in a manner that benefits not only air quality but also local businesses and the regional economy. The 2022 AQMP also includes transportation control measures developed by SCAG in the 2016-2040 RTP/SCS. The 2022 AQMP includes the integrated strategies and measures needed to address the attainment of the 2015 8-hour ozone NAAQS.

4.3.1 Aesthetics

The Program would have the potential to result in a cumulatively considerable impact on aesthetics if, in combination with cumulative plans and programs within the greater Los Angeles region, it would result in substantial damage or degradation of a designated scenic vista or state scenic highway; substantial damage or degradation of recognized or valued views—including natural views of topography, mountains, oceans, or man-made visual features—in City-adopted land use plans; or substantial damage or degradation of existing features or elements that contribute to the existing visual character or image of a neighborhood, community, or localized area. Implementation of **MM AES-1**, **MM AES-2**, and **MM AES-3** would result in siting of downstream facilities that would avoid any areas that may affect visual resources, and impacts of the Program would not be cumulatively considerable.

4.3.2 Agriculture and Forestry

As discussed in Section 3.3, Agriculture and Forestry, there is little protected farmland in the City, and it is highly unlikely that a downstream Program facility would be sited there. There is no timberland in the City. The City General Plan including the Framework element is protective of the existing culture and use of agricultural and forested areas. Depending on the location of future facilities, as well as other projects that are proposed in the vicinity, there may be a less than significant cumulative impact to agriculture resources.

4.3.3 Air Quality

The Program would have the potential to result in a cumulatively considerable impact on air quality if, in combination with cumulative plans and programs within the greater Los Angeles region, it would conflict with or obstruct implementation of the SCAQMD 2022 AQMP; generate air pollutant emissions during construction or operational activities of sufficient quantity to exceed the Air Quality Significance Thresholds established by the SCAQMD; or expose sensitive receptors to substantial TAC concentrations.

The cumulative plans and programs within the greater Los Angeles region would result in the production of significant regional or localized emissions. The regional growth that would occur over a 30-year planning horizon would increase both mobile and stationary emission sources and contribute to an adverse cumulative air quality impact. The City acknowledges that implementation of the General Plan Framework would contribute to adverse cumulative impacts on air quality (City of Los Angeles 1996). The Los Angeles County portion of the SCAB is designated nonattainment for O₃, PM_{2.5}, and Pb under the NAAQS and nonattainment for O₃, PM_{2.5}, and PM₁₀ under the CAAQS. Construction of cumulative projects will further degrade the regional air quality.

Furthermore, the implementation of the transportation projects included in the 2020-2045 RTP/SCS, when taken into consideration with other development and infrastructure projects within the SCAG region and surrounding areas, would have the potential to result in a significant cumulative impact related to violating an air quality standard or contributing substantially to an existing or projected air quality violation in the short-term from construction emissions (SCAG 2020). Similarly, while the 2020-2045 RTP/SCS includes transportation projects and strategies to improve public health, it would result in a significant cumulative impact by exposing sensitive receptors to substantial pollutant concentrations that would harm public health outcomes due to placing sensitive receptors within 500 feet of freeways and high-volume roadways.

Already-imposed mitigation measures from certified EIRs prepared for cumulative projects, as well as existing regulatory programs and plan policies and strategies, would assist in mitigating these cumulative impacts. However, even with implementation of mitigation measures and existing regulatory programs construction and operational emissions from major development projects would still exceed SCAQMD significance thresholds (County of Los Angeles 2015). Therefore, emissions associated with projected growth and development would be considered a significant cumulative impact on air quality. The 2022 AQMP acknowledges that the most significant air quality challenge in the SCAB is the reduction of NO_x emissions sufficient to meet the ozone standard deadlines.

The SCAQMD has developed strategies to reduce criteria pollutant emissions, as outlined in the 2022 AQMP, pursuant to federal Clean Air Act mandates. The Program would be required to comply with all regulatory requirements and would be required by law to comply with any relevant control measures adopted by the SCAQMD as part of the AQMP. The City recognizes the importance of reducing emissions and improving air quality and would adhere to these goals and objectives.

Construction activities and long-term operation of the downstream elements of the Program would generate air pollutant emissions from mobile sources such as off-road equipment exhaust, on-road vehicle trips to and from the project site, and stationary sources associated with waste management facility operations (e.g., advanced thermal recycling units) and off-gassing of decomposing organics.

The SCAQMD approach for assessing cumulative operational impacts is based on the SCAQMD's Air AQMP forecasts of attainment of the NAAQS/CAAQS in accordance with the requirements of the federal and state Clean Air Act. This forecast also considers the SCAG's forecasted future regional growth. If a project is consistent with the regional population, housing, and employment growth assumptions upon which the SCAQMD's AQMP is based, then future development would not impede the attainment of the NAAQS/CAAQS and a significant cumulative air quality impact would not occur. Further, the SCAQMD thresholds and guidance for CEQA analysis are informed by their knowledge and understanding of air quality conditions and conformity considerations for the geographic area of their jurisdiction. In general, in the case of criteria pollutants, no single project would be sufficient in size, by itself, to result in emissions that are considered significant. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. As such, the SCAQMD's significance thresholds for regional air quality impacts are designed to establish cumulatively considerable contributions. Therefore, if a project does not exceed the identified significance thresholds for criteria pollutants, its emissions would not be cumulatively considerable. As detailed in Section 3.4, Air Quality, the modeled scenarios for downstream facilities would not exceed the regional or localized thresholds, and therefore would not be cumulatively considerable. In addition, implementation of MM AQ-1 would require development of an Air Quality Impact Analysis and implementation of emission reduction measures to further reduce the construction and operational emissions associated with future facilities to a less than significant level. The SCAQMD White Paper on Potential Control Strategies to Address Cumulative Impacts (2003) addresses cumulative impacts of air pollution and notes that projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant. Therefore, potential adverse impacts associated with the proposed Program would not be "cumulatively considerable" as defined by CEQA Guidelines Section 15064(h)(1) for air quality impacts. The court upheld the SCAQMD's approach to utilizing the established significance thresholds to determine whether the impacts of a project would be cumulatively considerable in *Rialto Citizens for Responsible Growth v. City of Rialto* (2012) Cal. App. 4th 899. Thus, it may be concluded that construction and operation of downstream facilities would not significantly contribute to an existing violation of air quality standards for regional pollutants (e.g., O₃) and would not contribute to a significant and unavoidable cumulative air quality impact.

4.3.4 Biological Resources

The Program would have the potential to result in a cumulatively considerable impact on biological resources if, in combination with cumulative plans and programs within the greater Los Angeles region, it would result in substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW, USFWS, or NMFS; substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS; substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal) through direct removal, filling, hydrological interruption, or other means; interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites; conflict with the provisions of an adopted local street tree preservation policy or ordinance; or conflict with the provisions of an adopted habitat conservation plan, natural community

conservation plan, or other approved local, regional, or state habitat conservation plan; or impact common wildlife species.

Present and future regional growth involving the construction of transportation infrastructure occurring over a 30-year planning horizon would have the potential to result in a loss of species and/or habitats and natural communities. While the City of Los Angeles Framework Plan (City of Los Angeles 2001) attempts to reduce biological effects through its policies regarding the use of open space and targeting growth within developed areas, the potential growth that may be pushed out to other areas could result in the loss of habitat for plants and animals (including some sensitive species). In this context, the Framework Plan itself is considered to generate significant cumulative impacts on biological resources. The cumulative effect of numerous small projects in natural open space would have a significant impact as the remaining habitat for plants and animals is fragmented and lost to piecemeal evaluation of potential project effects (City of Los Angeles 1996).

The County General Plan acknowledges that although any direct impacts on special-status species and the loss of sensitive habitats would be mitigated, due to the loss of common habitats and diminished resource availability, impacts on special-status species remain significant at the General Plan level, and cumulative impacts on special-status species would be cumulatively significant. Similarly, the County finds that avoidance or minimization of impacts on wildlife movement corridors and linkages may not always be feasible; therefore, the impediment of wildlife movement would be significant at the General Plan level and cumulatively significant (County of Los Angeles 2015).

Activities and projects included in the 2020-2045 RTP/SCS would include the conversion of natural landscapes containing sensitive biological resources. The incremental impacts of all of the projects and land use strategies included in the 2020-2045 RTP/SCS on biological resources would be expected to result in a significant cumulative impact because these projects would contribute to an increase in habitat fragmentation and development upon native habitats (SCAG 2020).

Any future related development within the City would be subject to all required laws, permits, ordinances, and plans to reduce impacts on biological resources. Reasonably foreseeable future programs and projects would be required to implement biological avoidance and minimization measures when obtaining relevant permits, including implementation of BMPs during construction. Future development would most likely include site-specific mitigation and be expected to comply with all applicable regulations. Development projects causing impacts on wetlands and riparian habitats would be subject to mitigation and the permit requirements of the U.S. Army Corps of Engineers, CDFW, SWRCB, and RWQCB. In addition, the policies and implementation measures within the respective cumulative plans, which aim for sustainable development, would help to preserve, replace, restore, or compensate for the loss of biological resources. Although direct impacts on special-status species and the loss of sensitive habitats would generally be mitigated on a case-by-case basis, impacts on biological resources would nonetheless be considered cumulatively significant even without the potential effects from the downstream elements of the proposed Program.

Depending on the locations of proposed new facilities necessary to support the Program, as well as other projects that are proposed in the Program, there may be a cumulative impact to biological resources. After implementation of **MM BIO-1**, the required habitat assessment would determine if potential impacts to biological resources could occur due to project implementation. **MM BIO-2** and

MM BIO-3 require sensitive community mitigation plans and worker training to avoid impacts to biological resources, respectively. However, even with incorporation of mitigation measures, the Program's downstream facilities could have a significant impact on common wildlife species. It is assumed that other projects would contain similar measures for the protection of biological resources and the Program could contribute to an already cumulatively considerable effects from other regional plans.

4.3.5 Cultural Resources

The Program would have the potential to result in a cumulatively considerable impact on cultural resources, if, in combination with cumulative plans and programs within the greater Los Angeles region, it would result in: a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5; a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5; or disturbance of human remains, including remains interred outside of formal cemeteries.

Historic, archaeological, and paleontological resources are important parts of the City's identity. These resources are nonrenewable and irreplaceable. Cumulative land use and transportation projects located in the Southern California region—including programs and policies implemented under the City of Los Angeles General Plan, Los Angeles County General Plan Mobility Element, and transportation development under the 2020-2045 RTP/SCS Active Transportation Plan—would have the potential to result in a cumulative impact associated with the loss of cultural resources. Due to the regional scale of the cumulative plans and programs in the Los Angeles region and the potentially large number of cultural resources that could be disturbed as a result of their implementation, a significant cumulative impact would result through the physical demolition, destruction, relocation, or alteration of a resource or its immediate surroundings such that the significance of the historical resource would be materially impaired (County of Los Angeles 2015; SCAG 2020).

These projects included in the projection method are regulated by federal, state, and local regulations, including PRC Section 5097, Mills Act, CHSC Sections 18950–18962, and the Secretary of the Interior's Standards for Rehabilitation and Standards for the Treatment of Historic Properties, and are required to comply with the regulations. City, County, and regional goals and policies also aim to preserve and protect significant cultural resources to the extent practicable. Even with regulations in place, individual historical resources could still be affected or degraded (e.g., from demolition, destruction, alteration, structural relocation) as a result of new private or public development or redevelopment and implementation of land use strategies under cumulative plans and projects (County of Los Angeles 2015; SCAG 2020).

Notification and inventory of archeological and paleontological resources, implementation of an unanticipated discovery plan, and compliance with Public Resources Code and the California Health and Safety Code mandatory processes that are required to be followed in the event of a discovery of any human remains would help mitigate potentially significant impacts, but they are expected to remain significant when considered cumulatively due to the large number of paleontological and archaeological resources within the greater Los Angeles region and the likelihood of yielding undiscovered human remains. Therefore, impacts on paleontological and archaeological resources and disturbance of human remains would be cumulatively significant from cumulative plans and projects.

Direct impacts to cultural resources are generally site specific. Future downstream components of the proposed Program that would require earth-disturbing activities, in combination with other cumulative projects resulting from growth and development in the study area, have the potential to contribute to the already cumulatively significant effects of other regional plans and projects. Implementation of **MM CUL-1** would require pre-construction surveys and tribal monitoring and **MM CUL-2** would require the implementation of an unanticipated discoveries plan should any resource be found during construction, both of which would provide for the preservation or recovery of significant resources. Additionally, other projects in the study area are subject to similar requirements. Developments that would disturb native soils or where no previous development has occurred have the potential to disturb or destroy unknown cultural resources. The extent or significance of these resources cannot be determined until discovery during surveys and evaluation or excavation of native soils. Mitigation on a case-by-case basis would reduce impacts but the proposed Program would have a contribution to an already cumulatively considerable impact.

4.3.6 Energy

The Program would have the potential to result in a cumulatively considerable impact related to energy, if, in combination with cumulative plans and programs within the greater Los Angeles region, it would result in the wasteful, inefficient, or unnecessary consumption of energy.

Cumulative growth and development in the greater Los Angeles region would result in additional energy demand, resulting in increased consumption of electricity and natural gas. The anticipated power and natural gas demands for the buildout of the City of Los Angeles Framework Plan would be considered to be cumulatively significant in the context of future growth elsewhere in Los Angeles County (City of Los Angeles 1996). Cumulative electricity demands within Los Angeles County in 2035 would total about 15.1 billion kWh per year (15,100 GWh per year), which is within Southern California Edison's demand forecast for its service area. Cumulative natural gas demands in 2035 would total about 232 million therms per year (61.6 million cf of natural gas per day), which is within the Southern California Gas Company's natural gas supply forecast. These cumulative impacts were considered to be less than significant (County of Los Angeles 2015).

Construction of downstream facilities would require the use of fuels (primarily gasoline and diesel) for the operation of construction equipment and vehicles to perform a variety of activities, including excavation, installation of proposed Project components, and vehicle travel (including on-site and commuter trips). Operation of downstream facilities would also require the use of fuels for stationary and mobile sources. Per the methodology presented in Section 3.7.3.2, fuel consumption was estimated for the construction and operation of each type of facility as summarized in Table 3.7-9. As shown in Table 3.7-9, the construction of downstream facilities would result in a maximum consumption of approximately 43,770 gallons of fuel per year. Operation of the Advanced Thermal Recycling facility would be the most energy intensive, with an estimated consumption of 182,140 gallons of fuel per year. Implementation of these regulatory measures would further reduce fuel consumption and energy use. Accordingly, with compliance with applicable regulations, construction and operation of downstream facilities would not result in wasteful, inefficient, or unnecessary consumption of energy resources.

The California Building Energy Efficiency Standards (24 CCR, Parts 6 and 11) are designed to reduce unnecessary energy consumption in newly constructed and existing buildings, such as residential and

commercial structures. Further, consistent with the 2045 carbon neutrality goal (CARB 2022), it is projected that zero-carbon emission electric and hydrogen equipment and vehicles will gradually replace traditional liquid-fueled mobile sources in urban fleet applications where overnight recharging and refueling can be done at designated facilities. Thus, the Program would not conflict with Title 24 or obstruct its implementation on applicable land use development projects in California. Thus, downstream facilities would not conflict with or obstruct any adopted energy conservation plans or state or local plans for renewable energy or energy efficiency and the Program's contribution to cumulative impacts are expected to be less than significant.

4.3.7 Geology and Soils

The Program would have the potential to result in a cumulatively considerable impact on geology and soils, if, in combination with cumulative plans and programs within the greater Los Angeles region, it would: directly/indirectly cause substantial risk of injury resulting from rupture of a known earthquake fault, landslides, and seismic ground shaking or seismic-related ground failure, including liquefaction; destroy, permanently cover, or materially and adversely modify one or more distinct and prominent geologic or topographic features; constitute a geologic hazard to other properties by causing or accelerating instability from erosion; accelerate natural processes of wind and water erosion and sedimentation, resulting in sediment runoff or deposition that would not be contained or controlled on-site; be located on unstable soil; or result in an on-site or off-site landslide, collapse, or lateral spreading; or directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

As discussed in the Los Angeles County General Plan, most of southern California, including the cumulative programs and projects in the greater Los Angeles region, is in an area of relatively high seismic activity, and buildout and development of the cumulative programs and projects in the County would expose of additional people and new infrastructure to the effects of earthquakes, seismically related ground failure, liquefaction, and seismically induced landslides. As the region grows, plan- and site-specific studies will be necessary to identify potential hazards and stipulate mitigation to reduce the impacts. Adequate studies, designs, and construction measures can be taken to reduce the potential impacts (County of Los Angeles 2015). Because of the site-specific nature of geological conditions (i.e., soils, geological features, seismic features, etc.), geological and soil impacts are typically assessed on a project-by-project basis rather than a cumulative basis.

Future cumulative development in the area, in addition to the Program, would be subject to local, state, and federal regulations pertaining to geology and soils, including California Building Code and City of Los Angeles Building Code requirements (or County requirements, as appropriate). These regulations contain requirements for development in areas that are subject to Seismic Design Categories D, E, and F. In addition, cumulative projects would be subject to the Alquist-Priolo Earthquake Fault Zone Act, which restricts development on active fault traces. Adherence to these regulations and standard engineering conditions would help reduce cumulative impacts related to geology and soils. Implementation of transportation projects and land use strategies included in the 2020-2045 RTP/SCS and City of Los Angeles General Plan within the region would contribute to cumulative significant impacts with regard to the potential to expose additional people and infrastructure to the effects of earthquakes, seismic related ground-failure, liquefaction, and seismically induced landslides due to: thousands of acres of land subject to severe peak ground acceleration, potential liquefaction, and potential earthquake-

induced landslides within 500 feet of major land use and transportation projects; tens of thousands of acres subject to moderate or high soil erosion within 500 feet of major land use or transportation projects; and several miles being within the Alquist-Priolo Earthquake zone. In addition, expansive soils are present throughout the region, and larger transportation projects and regional land use strategies in particular may result in significant cumulative impacts where projects are located within areas of expansive soils. Even with the implementation of mitigation measures, these cumulative impacts would remain significant (SCAG 2020).

Geology and soils impacts are site-specific and are generally mitigated by project design and engineering features to safeguard against seismic and geological hazards and, thus, are not typically considered to contribute to a cumulative impact. Additionally, with implementation of **MM GEO-1**, potential project-level impacts would be minimized and would be less likely to contribute to a significant cumulative impact. As such, the Program's impacts on geology and soils would not be cumulatively considerable.

4.3.8 Greenhouse Gases

The Program would have the potential to result in a cumulatively considerable impact on GHG emissions, if, in combination with cumulative plans and programs within the greater Los Angeles region, it would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with any applicable plan, policy, regulation, or recommendation of an agency adopted for the purpose of reducing emissions of GHGs.

Past, present, and future development, including buildout of the cumulative land use and transportation plans, would generate GHGs in significant quantities. The Climate Action Plans of state, regional, and city governments would help minimize GHGs. In addition, implementation of the 2020-2045 RTP/SCS would reduce GHG emissions from transportation and stationary sources compared with existing conditions. The 2020-2045 RTP/SCS meets and exceeds SB 375 targets for reducing GHG emissions, which demonstrates that the RTP/SCS is able to do more than its share to reduce GHG emissions for light- and medium-duty vehicles and heavy trucks, resulting in a less-than-significant cumulative impact with respect to the SB 375 targets (SCAG 2020). However, additional measures would be necessary to reduce GHG emissions to levels that would meet the long-term GHG reduction goal under Executive Order S-03-05 (i.e., reduce GHG emissions to 80% of 1990 levels by 2050).

Although it is possible that individual projects may mitigate their respective GHG emissions, not all projects will be able to achieve adequate reductions. Furthermore, the cumulative effect of various projects and overall growth in the region, according to applicable plans, will result in exceedances of long-term goals. CARB has updated the scoping plan to identify additional measures for achieving long-term GHG reduction targets (CARB 2022). As identified by the California Council on Science and Technology, the state cannot meet the 2050 goal without major advancements in technology. While the 2020-2045 RTP/SCS acknowledges all the responsible sectors are not in conflict with AB 32 and Executive Orders, in the event of a worst-case scenario, such as if other responsible agency implementation activities do not achieve their respective GHG emission reduction goals to the appropriate level, the environmental analysis would result in a determination that there would be a potential for a significant cumulative impact.

Because no single project is large enough to result in a measurable increase in global concentrations of GHG emissions, climate change impacts of a project are already considered on a cumulative basis.

Specifically, the analysis in Section 3.9, Greenhouse Gases, is consistent with CEQA Guidelines Section 15064.4(b) and considers whether the incremental contributions of the Program and associated downstream facilities could be cumulatively considerable. Although the City has not established a numeric threshold of its own as a lead agency, the Program's conformance with regional and local GHG emission reduction initiatives demonstrates that the Program would be consistent with applicable plans and policies adopted to meet the statewide reduction targets. The CEQA Guidelines advise that, "[p]ursuant to Sections 15064(h)(3) and 15130(d), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously adopted plan or mitigation program under specified circumstances" (OPR 2017). The Program's conformance with local plans and policies has been sufficiently demonstrated in Section 3.9, Greenhouse Gases; therefore, the Program's impact on GHG emissions would be less than cumulatively considerable.

4.3.9 Hazards and Hazardous Materials

The Program would have the potential to result in a cumulatively considerable impact related to hazards and hazardous materials, if, in combination with cumulative plans and programs within the greater Los Angeles region, it would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions through the routine transport, use, or disposal of hazardous materials or handling in such a way as to involve the release of hazardous materials into the environment; emit/handle/involve hazardous materials and/or waste within one-quarter mile of an existing or proposed school; be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment; or hinder or impair an adopted emergency response or evacuation plan or route.

Hazardous material use or hazardous emissions are cumulatively significant when the combined activities of individual industrial or commercial businesses that use, transport, or dispose of hazardous materials result in hazardous conditions. Cumulative impacts may also occur when multiple development projects disrupt existing hazardous materials sites in adjacent areas. In addition, the transport of hazardous materials may increase as a direct result of increased hazardous materials usage within the region (County of Los Angeles 2015). Continued growth and development in the greater Los Angeles region, including land use development and the implementation of transportation improvements, and the anticipated increased mobility from implementation of the 2020-2045 RTP/SCS may result in greater exposure of local populations to various hazards and may create a significant hazard to the public or the environment as a result of increased hazardous materials storage, use, disposal, and/or transport.

While mitigation measures incorporated in development projects would help reduce impacts to the maximum extent practicable, cumulative impacts related to routine transport, use, or disposal of hazardous materials, upset or accident conditions involving the release of hazardous, and hazardous materials emissions in the vicinity of a school would remain significant.

The potential of exposure to hazards is equally high in urban and rural areas where former land uses may have contaminated soil or groundwater, which could be disturbed from the construction of new land uses and infrastructure. However, where such incidences occur, the need for remediation is limited

to the horizontal and vertical extent of contamination. Such incidences would not necessarily be affected by other sites in surrounding areas. Any future development would be required to comply with applicable federal, state, and local regulations related to hazardous materials. Required compliance with these regulations would minimize contribution of cumulative impacts related to the hazardous materials sites, and impacts would not be cumulatively significant.

Depending on the location of future facilities, as well as other projects that are proposed in the vicinity, there may be a cumulative impact from the transportation, use, storage, recycling, and disposal of hazardous wastes that may be generated during implementation of the proposed Program, which could cumulatively increase potential risks to the surrounding community. Upon determination of the facility location, **MM TR-1** and **MM HAZ-1** through **MM HAZ-7** would be required to minimize or avoid impacts. However, the program-level analysis and the potential for unusual site-specific, project-specific, or road-specific conditions, installation of new downstream facilities may result in impacts related to emergency response plan and emergency evacuation plans that would contribute to a considerable cumulative impact.

4.3.10 Hydrology and Water Quality

The Program would have the potential to result in a cumulatively considerable impact on hydrology and water quality, if, in combination with cumulative plans and programs within the greater Los Angeles region, it would: violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality; substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin; substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces; result in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; or conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Further urbanization in the greater Los Angeles region and implementation of transportation improvements and land use strategies would result in a continuing increase in stormwater runoff, water quality degradation, and the exposure of persons and property to floodplain hazards.

Cumulative growth and development would generate additional pollutants from residential, commercial, industrial, and transportation facilities. The increase in impervious surface areas would increase urban runoff, resulting in the transport of greater quantities of contaminants to receiving waters that may currently be impaired. Paved surfaces and drainage conduits can accelerate the velocity of runoff, concentrating peak flows in downstream areas faster than under natural conditions. In addition, the increase in impervious areas could decrease groundwater recharge, increase runoff rates and/or volumes and expose additional people and property to risks associated with dam inundation, seiche, tsunami, and/or mudflow. Population growth could contribute incrementally to depleted groundwater supplies due to additional demand for potable water such that there would be a net deficit in aquifer volume or a lowering of local groundwater level.

Buildout in the region would involve soil disturbance, construction, and operation of developed land uses that could each generate pollutants affecting stormwater. Although specific impacts may not rise to significant runoff or pollutant levels, the cumulative effect could be considerable. However, various

regulatory requirements are in place to minimize these effects, including the Clean Water Act, compliance with which is administered by the Los Angeles RWQCB. Other requirements involve preparing and implementing stormwater pollution prevention plans pursuant to the Statewide General Construction Permit, complying with the MS4 Permit, improving flood control facilities and design requirements to raise structures above flood zones, and complying with recommendations in geotechnical reports to minimize mud flows. Even with compliance with these water quality, drainage, and flood safety regulations and policies, impacts on hydrology and water quality would be cumulatively significant.

The Program would not affect the City's ability to implement or enforce its goals or policies or otherwise be inconsistent with regulatory requirements related to the minimization of water quality impacts. Hydrology and water quality impacts are typically site-specific and mitigated on a project-by-project basis. Depending on the location of future facilities, as well as other projects that are proposed in the vicinity, there may be a cumulative impact, however. Once a project site for a downstream facility is identified, **MM HWQ-1** would require preparation of a project-specific hydrology and water quality study. Generally, urban areas will have a drainage master plan which identifies the project site conditions assumed during design of master drainage plans. A number of natural drainages within the project area may also have current geomorphologic studies which would more clearly identify potential impacts to the overall system. As part of **MM HWQ-1**, review of master drainage plans in the vicinity of the project, and those continuing downstream to the ultimate discharge of the drainage, would be conducted. All project development will address any deviations from these master plans and studies through regulatory compliance or site-specific mitigation.

From a cumulative impact perspective, **MM HWQ-1** would evaluate Basin Plan goals, and if applicable any other basin-wide or jurisdiction-wide master plans to facilitate evaluation of potential cumulative impacts to the region. Further, **MM UTIL-4** would require a site-specific water supply study, which would ensure that water supplies are not significantly impacted. With implementation of **MM HWQ-1** and **MM UTIL-4**, potential project-level impacts would be minimized and would be less likely to contribute to a cumulative impact. As such, cumulative impacts would be less than significant.

4.3.11 Land Use and Planning

The Program would have the potential to result in a cumulatively considerable impact on land use and planning, if, in combination with cumulative plans and programs within the greater Los Angeles region, it would not be consistent with adopted land use goals, objectives, or policies of applicable lands use plans or create incompatible land uses with the immediate surrounding land uses. The cumulative growth and development in the greater Los Angeles region is expected to be largely consistent with the plans that have been established to guide and regulate growth patterns and infrastructure improvements. Regional planning documents, such as SCAG's RCP and RTP/SCS, are often used during planning within the greater Los Angeles area.

Land use impacts tend to be localized and site dependent. General Plans and other land use plans are by their nature cumulative, and therefore Plan consistency would be determined on a facility-by-facility basis and would also take into consideration the existing and proposed development in the vicinity of a proposed facility.

The ability for the project and the future facilities to contribute to cumulative land use impacts will be dependent upon the siting of the future facilities, what the applicable General Plan and Zoning is for the site, and what the surrounding uses are. Additionally, other projects proposed or under construction in the vicinity of the future facilities would be considered. Compliance with applicable General Plan and zoning conditions would have less than significant cumulative impacts.

4.3.12 Mineral Resources

The proposed Program would have the potential to result in a cumulatively considerable impact if, in combination with other projects that are proposed in the vicinity, it would result in the loss of availability of such resources. Mineral resource impacts are site-specific and are generally mitigated by project design and siting to safeguard against loss of availability. As such, they are not typically considered to contribute to a cumulatively considerable impact.

4.3.13 Noise

The Program would have the potential to result in a cumulatively considerable impact on noise and vibration, if, in combination with cumulative plans and programs within the greater Los Angeles region, it would exceed the thresholds established by the City of Los Angeles (refer to Section 3.14.2.3). Development of new residential, commercial, or industrial structures could increase both stationary and mobile sources of noise from heating, ventilation, and air-conditioning and other equipment as well as vehicles. The extension of new roadways and transit corridors could also expose sensitive receptors to new sources of elevated noise that are adjacent to these areas. Construction activities could also generate significant cumulative noise and vibration effects if in proximity to one another or in combination with operational or vehicular noise. Cumulative projects would be required to comply with the applicable land use compatibility classifications and noise ordinances. However, there may be situations where noise and vibration levels from individual and cumulative projects exceed applicable standards, thereby resulting in cumulatively significant noise impacts.

The planned development under the County of Los Angeles General Plan and City of Los Angeles General Plan would increase the ambient noise environment and would have the potential to affect noise sensitive land uses in the vicinity of an individual project. Similarly, significant noise impacts may occur from operation of heavy earthmoving equipment and truck hauling that would occur with construction of individual development projects. Because construction activities associated with any individual development may occur near noise-sensitive receptors and, depending on the project type noise, disturbances may occur for prolonged periods of time, construction noise impacts associated with implementation of the downstream elements of the Program are considered significant. Additionally, vibration generated by construction equipment has the potential to exceed the FTA criteria for human annoyance and structural damage, which would be significant.

Further, implementation of the 2020-45 RTP/SCS (SCAG 2020) could result in significant cumulative impacts from the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Both construction and operation activities could expose people to excessive groundborne vibration or groundborne noise levels, constituting a significant impact even without the proposed Program.

Upon determination of the facility locations under the proposed Program, **MM NOI-1** requires the preparation of a Noise and Vibration Study. This study would establish the project-specific impacts of the project, and the applicability of **MM NOI-2** through **MM NOI-6**. **MM NOI-1** also requires consideration of the noise levels in the ambient environment for consideration of cumulative impacts. Implementation of these mitigation measures would minimize noise associated with construction and operation of downstream facilities and are likely to reduce the proposed Program's contribution to the already regionally considerable cumulative impacts.

4.3.14 Public Services, Utilities, and Service Systems

The Program would have the potential to result in a cumulatively considerable impact on public services, if, in combination with cumulative plans and programs within the greater Los Angeles region, it would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, schools, parks, or other public facilities. The Program would have the potential to result in a cumulatively considerable impact on utilities and service systems, if, in combination with cumulative plans and programs within the greater Los Angeles region, it would exceed the existing and planned water supply; cannot be adequately served by the existing and planned water infrastructure; exceed the existing sewer capacity; conflict with solid waste policies and objectives in the City of Los Angeles Solid Waste Management Policy Plan or Framework; or result in a need for an additional solid waste collection route, or recycling or disposal facility to adequately handle project-generated waste.

Cumulative growth within the greater Los Angeles region would result in increased demand and a need for fire and police services and other public services and utilities to serve new development and populations (City of Los Angeles 1996; County of Los Angeles 2015). Many areas within the region already have inadequate public services for the existing populations and commercial businesses. Further growth, including implementation of the 2020-2045 RTP/SCS, would exacerbate existing needs as well as the expanded needs of cumulative programs and plans. In order to maintain adequate service capacity, the construction or expansion of public service facilities would be required, which would have the potential to result in an adverse impact on the environment (County of Los Angeles 2015). Although the majority of cumulative projects would involve discretionary actions and therefore would be required to demonstrate compliance with CEQA prior to approval, they would incrementally increase the need for public services. These impacts would be largely mitigated through local municipal and school district developer fees to fund the development of new or expansion of existing public service facilities (County of Los Angeles 2015). However, the incremental increases would have the potential to result in significant cumulative impacts even without the contribution of the proposed Program.

Demand for additional public services is usually created when there is a net increase in population in an area as a result of a project. The Program would not result in an increase in population because the construction crews would not require relocated housing during construction. The construction and operation of downstream measures would not increase the need for additional or altered schooling or park infrastructure in the Program Area.

Depending on the location of future facilities, as well as other projects that are proposed in the vicinity, related to their wastewater discharge, water consumption, energy consumption, and stormwater discharge, there could be a cumulative impact on these resources. However, implementation of **MM UTIL-4** and **MM UTIL-5** would require an assessment of water supply and the capacity of wastewater systems affected by the proposed project prior to final site selection. In addition, implementation of **MM UTIL-3** would require water conservation measures to be incorporated into the facility design, and **MM UTIL-6** would require energy efficient design to reduce energy demand. The construction of downstream facilities would support future growth and diversion of waste from landfills. As a result, impacts would be minimized and would be considered to have a less than cumulatively considerable effect on existing cumulatively considerable impacts.

4.3.15 Transportation

The Program would have the potential to result in a cumulatively considerable impact on transportation/traffic, if, in combination with cumulative plans and programs within the greater Los Angeles region, it would result in temporary or permanent traffic constraints; result in the temporary or permanent loss of access; result in the loss of bus stops or the rerouting of bus lines; conflict or be inconsistent with CEQA Guidelines Section 15064.3(b)(2) by substantially inducing additional automobile travel due to operations; or negatively affect residential streets due to operations.

Development projects in Los Angeles County that have converted undeveloped and agricultural land to urban uses as well as infill development have resulted in residential and employment population increases and associated demand for expansions of roadway systems. The cumulative traffic impact of the Los Angeles County General Plan buildout will be largely mitigated through a combination of regional programs that are the responsibility of other agencies such as cities and Caltrans. However, if these programs are not implemented by the agencies with the responsibility to do so, the cumulative transportation and traffic impacts would remain cumulatively significant (County of Los Angeles 2015).

The 2020-2045 RTP/SCS, in addition to other projects from other regional plans (e.g., RTPs of adjacent jurisdictions), could result in additional impacts inside and outside the region. Therefore, when considered with other projects outside the region, the Program would have the potential to conflict with established performance of the circulation system by increasing overall VMT, constituting a significant cumulative impact. Forecasted urban development and growth that would be accommodated by the transportation investments in the RTP/SCS and increased mobility provided by the RTP/SCS would contribute to the significant impacts. Therefore, when considered with other additional projects outside the region, the Program would have the potential to conflict with established performance of the circulation system by increasing overall delays and congestion, constituting a significant cumulative impact.

The transportation and land use strategies considered in the 2020-2045 RTP/SCS and other RTPs in surrounding areas have the potential to conflict with emergency access, constituting a significant impact. While there are provisions in many other RTPs outside the SCAG region to offer connectivity in terms of goods and services so residents can enjoy a high quality of life complemented by easily accessible transportation options, the timing, location, and duration of construction activities from transportation projects—including grade crossings, arterials, interchanges, and auxiliary lanes outside the region—could result in delayed emergency vehicle response times or otherwise disrupt delivery of

emergency response services. For example, closing off one or more lanes of a roadway would result in impaired emergency routes. The closure of these lanes could potentially cause traffic delays and ultimately prevent access to calls for service. Construction and operation of the transportation projects, and related development projects outside the SCAG region, would have the potential to conflict with emergency access plans, constituting a significant cumulative impact.

Cumulative traffic analysis is a function of the impact of the Program, as well as the impact of other projects that are proposed in the vicinity. The potential traffic impacts associated with the implementation of the proposed Program are primarily associated with the construction and operation of the future downstream facilities that would be required to process the additional materials that would be diverted from the landfill. Future downstream facilities could have short-term traffic impacts associated with facility construction. Long-term transportation and traffic impacts would primarily be associated with truck trips associated with incoming and outgoing material and employee commutes.

While construction activities would generate some additional vehicle activity on Los Angeles roadways, these effects would be temporary. The number of trips relative to existing volumes would be highly dependent on the site location and surrounding circulation system. Temporary increases in vehicle trips generated during construction could have a potentially significant impact if the timing of those trips occurred during peak hours and contributed to congestion within City-designated congested roadway segments. Section 3.18, Transportation, provides greater detail on this topic.

The analysis in Section 3.18, Transportation, includes trip generation that assumes both the trips associated with incoming material, as well as the trips associated with outgoing material, once it has been processed. From a cumulative perspective, if all the proposed facilities were constructed, the proposed Program could generate approximately 16,586 total daily VMT. It is important to note that not all of the project operation trips would be considered “new” trips as some of these trips may carry materials that would have otherwise been destined for landfills. The associated net change in VMT would be relative to the change in distance of the trips diverted from the landfill to the new downstream facility.

Under the assumption that all of the proposed facilities are constructed and given the estimated number of employees for operation of each of the facilities, the maximum calculated VMT per capita (i.e., per employee) would be 75 VMTs per employee per day (e.g., 16,586 VMT/222 employees), which is greater than the LADOT threshold of 7.6 to 15.0 VMTs per employee per day depending on the location of the downstream site (refer to Table 3.18-3). Further, because the location and scale of downstream facilities is currently unknown, there is the potential that the project would require modifications to the public right-of-way (i.e., dedications and/or improvements in the right-of-way, reconfigurations of curb line, etc.) that could negatively affect existing pedestrian, bicycle, transit, or vehicle circulation resulting in a potentially significant impact.

Operation of the downstream facilities would generate ongoing additional vehicle activity on Los Angeles roadways. The number of trips relative to existing volumes would be highly dependent on the site location, surrounding circulation system, and scale of the project. **MM TR-1** requires the preparation of a project-specific traffic report once a facility has been proposed at a specific location. The project-specific traffic analysis would determine the existing traffic conditions and would use project-specific traffic data to characterize operation-related impacts to the existing circulation system. If proposed

activities are forecast to exceed the established thresholds, project-specific mitigation measures shall be implemented to minimize impacts to the extent feasible. Such measures could include but are not limited to: restricting traffic during peak hours, providing preparation and implementation of a traffic management plan, and requiring carpooling or shuttle service to the project site. Incorporation of **MM TR-1** would ensure that the trips generated during operations would not exacerbate existing congestion problems within the City. With implementation of this measure, the increase in vehicle trips generated by a project would be fully analyzed with required mitigation measures to reduce as appropriate. **MM TR-1** would consider the cumulative traffic setting, and therefore, construction and operation of downstream facilities would have a less than considerable cumulative impact on the traffic system and would not conflict with any transportation-related program, plan, ordinance, or policy.

4.3.16 Tribal Cultural Resources

The Program would have the potential to result in a cumulatively considerable impact on tribal cultural resources, if, in combination with cumulative plans and programs within the greater Los Angeles region, it would cause a substantial adverse change in the significance of a tribal cultural resource. Tribal cultural resources in the region are protected by state and regional laws. Cumulative growth and development within the region, as well as implementation of the 2020-2045 RTP/SCS strategies, have the potential to result in the loss or disturbance of tribal resources (County of Los Angeles 2015). Although these potential impacts are normally addressed on a project-specific basis through the AB 52 consultation process, some projects are unable to fully avoid or fully mitigate potential impacts. Impacts related to the loss and/or disturbance of known or unknown archaeological sites within the greater Los Angeles area, such that the significance of such resources would be materially impaired, are considered to be cumulatively significant even without the proposed Program (City of Los Angeles 1996; County of Los Angeles 2015).

Construction of downstream facilities would result in ground-disturbing activities that have the potential to cause a substantial adverse change in the significance of a tribal cultural resource if they are present at or near the future site. The City would implement **MM CUL-1**, **MM CUL-2**, and **MM CUL-3** to identify any known tribal cultural resources at a potential downstream facility site and ensure that they are avoided, and no damage is caused by construction. However, even with these mitigation measures, impacts to tribal cultural resources could occur, and the Program could result in a cumulatively considerable contribution to a significant cumulative impact on tribal cultural resources.

4.3.17 Wildfire

The Program would have the potential to result in a cumulatively considerable impact related to wildfire, if, in combination with cumulative plans and programs within the greater Los Angeles region, it would: substantially impair an adopted emergency response plan or emergency evacuation plan; exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire; require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment; or expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

Los Angeles County faces major wildland fire threats due to its hilly terrain, dry weather conditions, and the nature of its plant coverage. Although fires are a natural part of the wildland ecosystem, development in wildland areas increases the danger of wildfires to residents, property, and the environment. Cumulative growth and development within the Los Angeles region would increase the number of wildfire events and increase the exposure of people to risks associated with wildfires. Continued growth and development in Los Angeles County would significantly affect the Los Angeles County Fire Department operations. In an effort to reduce the threats to lives and property, the Los Angeles County Fire Department and LAFD have instituted a variety of regulatory programs and standards for vegetation management, pre-fire management and planning, fuel modification, and brush clearance. The City and County General Plan policies and conditions of approval for future development projects, in addition to compliance with applicable regulations, would minimize proposed Program impacts related to wildland fires. Any future development would be required to comply with applicable federal, state, and local regulations related to wildland fires. Required compliance with these regulations would ensure impacts related to wildland fires would be less than cumulatively considerable (County of Los Angeles 2015).

As described in Section 3.21, Wildfire, regulatory requirements and **MM TR-1**, **MM HAZ-6**, and **MM HAZ-7** would be expected to reduce the risk of construction-related activities impairing an emergency response plan, emergency evacuation plan or landslide risks. However, the program-level analysis and the potential for unusual site-specific, project-specific, or road-specific conditions, installation of new downstream facilities may result in impacts related to emergency response plan, emergency evacuation plans, or landslide risk that would contribute to a considerable cumulative impact.

4.4 Disadvantaged Communities

Solid waste facilities have historically been located in heavy industrial zones and residents living adjacent to these zones may be affected by cumulative impacts. Under state law, environmental justice is “the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies” (Gov. Code, § 65040.12(e)). The principle of environmental justice ensures equal and equitable protection from environmental and health hazards, while giving people fair and equal access to the planning and decision-making process.

CEQA does not require consideration of environmental justice as a specific resource area, and there are no formal requirements or procedures to evaluate potential environmental justice impacts for specific projects or programs under CEQA. The state (SB 1000) does require the preparation of an environmental justice element to general plans, and OPR-established procedures for that analysis inform consideration of environmental justice in project-level CEQA analysis. The current standard of practice for General Plans is to consider environmental justice in the cumulative impact analysis because it reflects the combined effects of project-level impacts with the effects of other stressors on environmental justice communities.

The City is aware that certain upstream measures may be perceived to pose or could pose an economic hardship to residents and businesses in Disadvantaged Communities due to the start-up cost to shift from the use of single-use plastics to recyclable, compostable, or reusable alternatives. Therefore, the

Program includes pilot projects to assist businesses with this transition as well as public outreach and education to inform citizens about alternative materials.

Although not required by CEQA for an EIR or PEIR, when siting new downstream facilities, the City would seek to consider concerns of disadvantaged communities and apply a precautionary approach. This follows from the state's reliance on pollution burden on communities as a measure of whether a community is disadvantaged or subject to environmental justice concerns. CalEPA has prepared an Environmental Justice Action Plan to develop guidance on Environmental Justice issues (such as "precautionary approaches" and "cumulative impacts") for state boards, commissions, and regulatory agencies to ensure that Environmental Justice concerns are integrated into the state's environmental programs. A precautionary approach means taking anticipatory action to protect public health or the environment if a reasonable threat of serious harm exists based upon the best available science and other relevant information, even if absolute and undisputed scientific evidence is not available to assess the exact nature and extent of risk.

For downstream facilities, consideration of Disadvantaged Communities and environmental justice is dependent on the future location of the facility. The City would engage in community/public outreach to the disadvantaged communities that may be affected by the future facility, consistent with the requirements of CEQA (i.e., during scoping and circulation of draft and final environmental reviews), but with elements of enhanced public outreach to ensure that Disadvantaged Communities have the opportunity for meaningful input.